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HOLMAN TAYLOR, B. S., M. D.
AND
R. B. ANDERSON, JR., A. B., M. D.
FORT WORTH, TEXAS

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EDITORIAL OFFICES: 1404 W. El Paso Street, Fort Worth, Texas
HOLMAN TAYLOR, B. S., M. D., EDITOR-IN-CHIEF
R. B. ANDERSON, JR., A. B., M. D., ASST. EDITOR

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Vol. XL **May, 1944** **No. 1**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The American Medical Association Will Meet in Chicago, Monday, June 12 to Friday, June 16, 1944, for attention to the business of the Association, for the presentation of scientific discussions, and to further the progress of scientific medicine.

It will be recalled that the American Medical Association, as was the case with many medical organizations, including our own, confined its Annual Meeting last year to its House of Delegates. War conditions existing at the time made it impracticable, or at least undesirable, to promote a full-fledged meeting as per usual. It has since been determined that medicine is by way of being a serious war factor, and it is believed that meetings of medical organizations help, rather than hinder. True, travel and hotel conditions are still bad, but it appears that we are all better adjusted to such inconveniences than we were earlier in the war, and know how to put up with them and make the best of available accommodations.

Any member of the State Medical Association of Texas, including military members, is entitled to Fellowship in the American Medical Association and, being a Fellow, is entitled to attend the meeting of that organization. It is hoped that the attendance from Texas will be as large as possible under the circumstances.

The House of Delegates of the Association will convene Monday, June 12, at 10:00 a. m., in the Red Lacquer Room of the Palmer House. Texas is entitled to five delegates. The hold-over Delegates of this year are Drs. Holman Taylor and F. J. L. Blasingame (recently appointed to take the place of Dr. Sam E. Thompson, resigned), with Drs. R. B. Anderson and L. H. Reeves as Alternates. The term of office of Drs. H. R. Dudgeon, A. A. Ross and E. H. Cary, expire with the present Annual Meeting of the State Medical Association, as does that of Drs. E. W. Bertner, H. Leslie Moore, and B. E. Pickett, their alternates.

Serious and far-reaching decisions will be made at this meeting of our national body. Noteworthy history is in the making. It should be our purpose to rally to the support of the American Medical Association one hundred per cent, and certainly a diversion of our forces nationally by the promotion of sideline organizations, however well-intentioned their organizers may be, should not be in order. It is an established maxim of war that if the enemy can be divided, he can be easily whipped. The medical profession is at war, not only with a deadly enemy on the actual battlefields of the world, but with an insidious and lethal enemy of the art and science of medicine as we know practice it in this country, at least at the present time. There should no more be diversion of interest and purpose in the one war than in the other.

Relocation of Physicians.—The drain upon the medical profession serving the people of the United States, to meet the medical needs of the Armed Forces, has in certain localities resulted in a critical shortage of medical care, despite the best efforts of the Procurement and Assignment Service to prevent such condition. These areas are the result in some

instances of a new concentration of people serving an industry established solely because of the war and, in other instances, the result of permitting too many doctors to enter the Armed Services from a given area. Local Procurement and Assignment Advisory Committees, in their patriotic zeal to win the war by furnishing our Government with the very best type of medical manpower and in adequate quantity, have no doubt in some places approached too close to the margin of needed medical population for civilian practice, in recommending physicans for military service, overlooking the fact that later depletions by death from the ranks of the older physicians left behind, would result eventually in a critical shortage of medical service, since replacements from usual sources are not to be had for the duration.

Because of difficulties encountered in securing relocation of physicians from areas where they could be spared to these critical areas, the Government has attempted to help in the matter by offering as an inducement financial support to physicians who will agree to relocation under certain specified conditions. Public Law No. 216, passed by the 78th Congress, and approved by the President on December 23, 1943, appropriated to the U. S. Public Health Service the sum of $200,000 during the fiscal year ending June 30, 1944, for the relocation of private practicing physicians and dentists.

This act provides that a municipality, community or other local governmental unit may apply to the U. S. Public Health Service for relocation of a physician or dentist to an area within its jurisdiction. A legally authorized representative of a community, such as the mayor, city manager or county judge, executes the application on a form secured from the State Health Officer, who must approve the application. It is provided that the community applicant shall pay 25 per cent of the expense of relocation of a physician or dentist, and the Public Health Service, as a practical procedure, requires that the community application be accompanied by a remittance from the community of $300, made payable to the Treasurer of the United States. When the community application is received, approved by the State Health Officer, and accompanied by the payment of $300, the Public Health Service can then enter into an agreement with a physician or dentist who has a license to practice in the state in which the applicant community is located, provided the physician or dentist agrees to practice in that community for at least one year, and is acceptable to the community. The cost of transportation of the physician or dentist, his family and household effects, are paid by the Public Health Service, and, in addition, a monthly allowance of $250 will be paid for three months. If the community obligation of 25 per cent of these expenses should exceed $300, the balance due must be remitted to the U. S. Public Health Service upon the latter's request. If it is less than $300 the excess will be refunded to the community.

The State Chairmen of Procurement and Assignment Service has the responsibility of determining which physicians and dentists are available for relocation. It has been the function of Procurement and Assignment Service in Texas, also, to determine areas that are inadequately served medically, and these determinations are made by the State Chairman's office, with the coöperation of the 126 Procurement and Assignment Advisory Committees throughout the State. So far, the funds available from Public Law No. 216 have not been utilized in Texas for the relocation of physicians, because it has not been necessary. There are areas in Texas needing physicians and it is becoming increasingly difficult to secure relocations. It is highly desirable to effect such relocations within state boundary lines if possible, but if and when it becomes impossible to meet medical needs within the state, it will then be necessary to use whatever is required to see that people do not suffer from lack of medical care.

The time may come when it will be necessary for the Government to commission medical officers ineligible for combat service to serve in these areas for the duration, if medical needs cannot be met by any other procedure. This problem is deserving of serious thought by the medical profession, and county medical societies should render every possible help to the Procurement and Assignment Advisory Committees in their areas, on whom the State Chairman must depend for evaluation of medical needs for the civilian population, and recommendations regarding measures to meet such needs.

Additions to the Public Relations Fund are published herewith, in order that our readers may have the continuation of the story. Last month we reported in these columns that the Public Relations fund totaled $2,978.75. The additions since then bring the total to $3,752.75. It may not be important, but it seems to us that those of our members who have thought enough of the socialized medicine predicament of our profession to make money contributions to its solution should be publicly thanked. We should keep in mind both those who have worked in this cause and those who have contributed money thereto.

Whether we will continue to ask contributions to the fund, or raise the dues for the purpose, will be decided by the House of Dele-

gates at the annual meeting immediately forthcoming. On the one hand it would seem advisable to distribute the burden involved on a per capita basis, while on the other hand it seem rather more equitable to let those who can afford to do so make voluntary contributions. We have confidence that our House of Delegates will find the solution.

In making the contributions, many of our members also make very pertinent remarks concerning the situation confronting the profession at this time. Dr. W. Ehrhardt, Westfield, says, "The freedom of medicine depends upon the political freedom of our nation." Then with the explanation that he is not attacking the New Deal, the Democratic Party or any other political set up, he observes that "The South plays a very minor part in shaping our political bearings since we blindly vote a ticket name regardless of what the party advocates. It is the easy way to vote, but has very little value. For some years our vote has been a pawn in the hands of planning politicians engaged in promoting the game of robbing Peter to pay Paul for his vote, by utopian promises that blind us to the reality that we cannot have a pie and eat it too." We think the point to these remarks is that the medical profession of the South should do something to curtail the utopian promises of the Democratic Party along such lines as socialized medicine, for instance. We think it is not so much that the Democratic Party has gone off in a tangent in the matter as it is that those who are promoting such schemes are of the Democratic Party and using the organization for their socialistic purposes.

In the meantime, we record the contributions received since the last published list, in addition to which we are publishing the totals by membership of county medical societies.

143.	Dr. L. C. Wayland, Plainview, *Hale-Floyd-Briscoe-Swisher Counties Medical Society*	4- 3-44	$ 25.00
144.	Dr. J. E. Clarke, Houston, *Harris*	4- 5-44	20.00
145.	*Gregg County Medical Society*	4- 5-44	50.00
146.	*Dawson, Lynn, Terry, Gaines, Yoakum Counties Medical Society* (Drs. A. L. Bradford, E. C. Davis, Wayne C. Hill, L. D. Richards, A. H. Smith, T. L. Treadway, A. S. Tomb)	4- 5-44	40.00
147.	Dr. L. C. Powell, Beaumont, *Jefferson County Medical Society*	4- 8-44	25.00
148.	*Tarrant County Medical Society*	4- 8 44	250.00
149.	Dr. W. F. Starley, Galveston, *Galveston County Medical Society*	4-10-44	10.00
150.	*Kerr-Kendall-Gillespie-Bandera Counties Medical Society*	4-10-44	25.00
151.	Dr. Ellen D. Furey, Beaumont, *Jefferson County Medical Society*	4-10-44	25.00
152.	*Lamb-Bailey-Hockley-Cochran Counties Medical Society*	4-11-44	40.00
153.	Dr. G. G. Howard, Weatherford, *Palo Pinto-Parker Counties Medical Society*	4-14-44	5.00
154.	Dr. Walter G. Stuck, San Antonio, *Bexar County Medical Society*	4-19-44	25.00
155.	*Titus County Medical Society*	4-20-44	25.00
156.	*Wichita County Medical Society*	4-21-44	159.00
157.	Dr. S. Z. Frazier, Lamesa, *Dawson-Lynn-Terry-Gaines-Yoakum Counties Medical Society*	4-27-44	25.00
158.	Dr. George Owen, Houston, *Harris County Medical Society*	4-27-44	10.00
159.	Dr. A. E. Sweatland, Lufkin, *Angelina County Medical Society*	5- 2-44	15.00
160.	Dr. E. O. Nichols, Sr., Plainview, *Hale-Floyd-Briscoe-Swisher Counties Medical Society*	5- 3-44	25.00
161.	Dr. George Owen, Houston, *Harris*	5-26-44	10.00
162.	Dr. S. Z. Frazier, Lamesa, *Dawson-Lynn-Terry-Gaines-Yoakum*	5-27-44	25.00

A summary of the contributions from the beginning discloses that county societies and/or their respective memberships, have made contributions as follows:

Angelina	$ 15.00
Austin-Waller	3.00
Bee-Live Oak-McMullen	45.00
Bell County	325.00
Bexar County	140.00
Brooks-Duval-Jim Wells	45.00
Caldwell County	70.00
Cameron-Willacy	58.00
Camp County	10.00
Colorado	10.00
Coryell	10.00
Dallas	90.00
Dallam-Hartley-Sherman-Moore	50.00
Dawson-Lynn-Terry-Gaines-Yoakum	75.00
Denton	60.00
DeWitt	25.00
Eastland-Callahan	40.00
El Paso	15.00
Falls	10.00
Galveston	100.00
Gregg	100.00
Guadalupe	13.50
Hale-Floyd-Briscoe-Swisher	50.00
Hardin-Tyler	19.00
Harris	668.00
Hays-Blanco	20.00
Hidalgo-Starr	80.00
Hutchinson-Carson	28.00
Jasper-Newton	5.00
Jefferson	150.00
Kerr-Kendall-Gillespie-Bandera	50.00
Kimble-Mason-Menard	55.00
Lamar	21.00
Lamb-Bailey-Hockley-Cochran	90.00
Lampasas-Burnet-Llano	5.00
Lee	3.00
Liberty-Chambers	29.00
Lubbock-Crosby	20.00

McLennan	100.00
Medina-Uvalde-Maverick-Val Verde-Edward-R-K-T-Z	5.00
Milam	10.00
Navarro	10.00
Nueces	5.00
Palo Pinto-Parker	105.00
Potter	15.00
Rusk	55.00
Tarrant	380.00
Taylor-Jones	50.00
Titus	25.00
Upshur	20.00
Victoria-Calhoun-Goliad	15.00
Walker-Madison	10.00
Washington	20.00
Webb-Zapata-Jim Hogg	40.00
Wharton-Jackson	25.00
Wichita County	159.00
Wilbarger	25.00
Williamson	47.00
Young-Jack-Archer	29.25
Total	$3,752.75

A United States Maritime Service Hospital Corps School has been set up at Sheepshead Bay, for training persons to render medical service and medical care to members of ships' crews, and to supervise the sanitation of such ships. This is the first time in history that anything of the sort has been attempted by the Maritime Service. The training program is directed by the War Shipping Administration, and the School is recognized by the Navy. It is understood that the Navy has conducted such schools for a good many years. The justification for the procedure is easily understood when it is considered that there would not be enough doctors in the country to supply the now very much expanded Maritime Service, if each ship had to carry a doctor. We have found out a good many things about emergency medical service; perhaps we should say we have rediscovered them, during the progress of this war. It is better, of course, that a physician be on hand to administer to any sick or injured soldier, sailor or marine, but that can't always be the case, and in recognition of that fact, enlisted men in the Army, Navy and Marine Corps, are now trained to administer first aid, and it is said that they do it nicely and adequately, under the circumstances. A sick man at sea, without a doctor, sometimes may be very much in need. A well-trained medical attendant comes in very handy under such circumstances.

Many of the candidates heretofore chosen for the Maritime Hospital Corps School have held college degrees, or had previous medical training, but that is not necessary. They must, however, have sufficient education to absorb the instructions they will be given at the School, which covers anatomy and physiology, nursing and preventive medicine, inoculation to prevent such diseases as smallpox, typhoid fever and Asiatic cholera, and also instruction in ship's hygiene and sanitation, clinical laboratory work, pharmacy and advanced first aid. Upon graduation, students are advanced to the rating of Pharmacist's Mate, Third Class. They then enter the Assistant Pursers' School for a period of five weeks, where they receive instruction in typewriting, payroll work, maritime laws and regulations, cargo manifests, general ship's business, ship payroll, insurance, withholding tax, "slop chest," etc. Thus the combined rating of Purser-Pharmacist's Mate is earned. There is a saving in time because of the special training and combination of training thus received.

Following the training above-mentioned, students receive further medical instruction of at least one month, with practical experience in a Marine or other approved hospital. During this phase of the training, trainees learn the essentials and necessary points in good bedside nursing, administration of medicine, record of pulse, temperature, blood pressure and so forth, as well as training in the specialized and practical branches of medicine, such as intravenous therapy, accidents, *et cetera.*

An important phase of the plan is that while graduates of the School are waiting for assignment to duty, they can serve with shipping companies, in a private capacity, which insures additional instruction and practice. Thus contact is made for vocational opportunities in the future.

We are directing the attention of our readers to this School for the reason that doctors are frequently importuned by patients to help in securing such opportunities as this, particularly during these war times. A letter to Mr. Marvin B. Simpson, Jr., Assistant Regional Public Relations Officer, U. S. Maritime Service, 1305 Prairie Avenue, Houston 2, Texas, will get results in the matter of further and more detailed information.

The Editor Rises to a Point of Personal Privilege.—In the March number of the JOURNAL, in discussing editorially the medical college situation in Texas, particularly in connection with the new set-up at Dallas, and the intention of the new school to establish a hospital for the study and treatment of mental and nervous diseases, as provided for by State law, the following statement was made:

"It will be remembered that there is a state law now calling for the erection of special psychopathic hospitals at Galveston and at Dallas. However, only the Galveston hospital has been built. The Legislature has failed to appropriate for the Dallas hospital. The Southwestern School of Medicine plans to relieve the state of the expense and the trouble of erecting and maintaining such an institution in Dallas, and it will be recalled in this connection that the psycho-

pathic (so-called) hospital at Galveston haas been closed."

This statement has evidently been misconstrued by at least one reader, and possibly others. We would not have it so. It seems that our critic felt that we were criticizing the hospital at Galveston, which is distinctly and definitely not so. Reference was had, instead, and as the text just quoted will clearly show, to the name of the institution, and not the institution itself.

The following quotation from a letter by the writer of the editorial concerned, to our critical friend, will be explanatory in this connection:

"As a matter of fact, our reference was entirely and absolutely to the name of the hospital. A hospital cannot be 'psychopathic.' It is, instead, 'psychiatric.' The mistake in naming the institution was made by the Legislature at the time the legislation was enacted. I expect I am personally as much responsible for this legislation as anybody else. It was my baby to begin with. Others, perhaps, contributed more power to the legislative push than I did, because of my personal limitations, but I was very proud of the institution, not only at the time it was set up, but throughout each month of its existence since that time. I have never criticized the hospital, and have praised it on occasion. Indeed, I have referred many patients to the institution, and have never been disappointed in their treatment. Indeed, I have always been highly pleased therewith."

WARNING AGAINST INDISCRIMINATE USE OF SULFATHIAZOLE OINTMENTS

The indiscriminate use of sulfathiazole and other sulfonamide ointments "in minor conditions, when less harmful drugs are adequate, should be discontinued," Roy A. Darke, M. D., Assistant Surgeon, U. S. Public Health Service, New York, declares in *The Journal of the American Medical Association* for February 12. "With the widespread publicity being given to these preparations," he continues, "it would seem desirable to prevent or discourage their sale except by prescription."

Dr. Darke says that "the recent widespread use of sulfathiazole ointment has revealed cases of sulfathiazole sensitivity. My aim in this paper is to call attention to the degree of sensitivity to sulfathiazole ointment existing among the general population . . ."

Reporting on a group of 218 patients who were treated topically with 5 per cent sulfathiazole ointment, he says that sensitivity was found to be present in 12 cases (5.5 per cent). This seems to be in approximate agreement with the findings reported by other investigators, both in the topical and oral administration of the drug.

The permanence of the sensitivity in Dr. Darke's group is not known, he says. The contact dermatitis in each case disappeared when the ointment was no longer applied. The healing of the condition being treated, however, seemed to have been definitely slowed.

"Because this sensitivity may preclude the use of the drug in the therapy of such diseases as meningitis, pneumonia and gonorrhea, it is important that sulfathiazole and other sulfonamide preparations be used topically only when a specific need for them can be justified," he advises.

PSYCHOSOMATIC MEDICINE

JACK R. EWALT, M. D.
(Associate Professor of Neuropsychiatry
University of Texas, School of Medicine)
GALVESTON, TEXAS

I. Orientation

Pychosomatic medicine is the study of illness in terms of the interrelationship of the physiologic and psychologic processes.

The early men of medicine were priests, philosophers, mystics or magicians. With the era of scientific observation modern medicine began to assume its present form and most of its early cultish trappings were discarded. With progress medicine became mechanized and moved into the laboratory and many diseases became invested with a series of tests and findings that were presumably specific for that disorder. Those ailments of man not adaptable to test tube or microscopic proof were looked upon with suspicion by the high priests of the new era of scientific knowledge. Those things not visible or palpable or capable of undergoing chemical tests were regarded as "abstract" or "intangible," and were often totally ignored.

In our laudable diligence in ferreting out the secrets of the cellular and organ function of man, the concept of man as a dynamic, thinking, functioning whole was largely overlooked. When the emotional forces refused to yield their secrets to mechanized laboratory procedures they were rejected by many "scientific" medical workers. Some may come to this section in the expectation of having what they call abstract concepts expounded, concepts they consider abstract because they have no odor, color, or bulk. Our preclinical training conditions us to such an attitude, and by emphasis on the positive aspects of our knowledge tends to obscure the vast gaps left in our understanding of a living human by the so-called "pure sciences."

Fortunately the curiosity fostered by the scientific approach stimulated a group of workers in the fields of physiology, medicine and psychiatry to explore the unknown areas in man's function. (Cannon, Meyer, Pavlov, Dunbar, Alexander, French, Weiss, Wolf, Alvarez, and Palmer—to mention a few.) They had sufficient imagination to conceive and use new methods of observation and new means of scientific verification. They reexamined ideas, well known to the early medical philosopher, that mental phenomena are facts, that they may be studied, and that they exert a potent influence on all bodily processes. They have fortified these ideas with a bulk of knowledge gained through laboratory experiments and the observation of live hu-

Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 20, 1944.

mans in their day to day function. To a pure scientist the bringing together of oxygen and hydrogen, under the proper circumstances, will yield water. Our scientists say this is a tangible fact because it is predictable, and under the same circumstances the same reaction will always occur. I submit, however, that this result is no more predictable and no more tangible than the erection that results when, under proper circumstances, a roving masculine eye meets an attractive feminine form. A failure to get the expected reaction in either experiment, one of the test tube and one of the living body, would be explainable on the grounds of unfavorable circumstances, or of impurity or inactivity of one of the reacting agents.

No concept of medicine can be successful that fails to bear in mind that all live patients are creatures of thought and emotion and physiological processes and no concept of health or disease can be complete if it fails to appreciate the oneness or unity of man's body-mind functions.

The patients considered suitable for psychosomatic study fall into three categories:

1. Cases in which the symptoms are predominantly psychogenic in origin. These are the cases usually referred to as the psychoneuroses.

2. Cases with organic or structural lesions in which functional elements aggravate the symptoms. Diseases of the order of tuberculosis, thyrotoxicosis, coronary disease, arteriosclerosis, poliomyelitis, postoperative and postpartum complications, *et cetera.*

3. Cases now considered organic or physiological but in which consistent psychologic configurations are found. Some examples are peptic ulcer; asthma; essential hypertension; anginal syndrome; coronary disease; arthritis, rheumatoid; diabetes, and dermatoses.

These syndromes and many others are being subjected to intensive study by workers in psychosomatic medicine. Many excellent reports are in the literature.[1, 8, 7, 3, 4, 5, 6, 2] The future looks bright for a more complete understanding of the illnesses of man as a result of these new studies, utilizing the combined efforts of all the preclinical and clinical departments of medicine and its allied fields.

The physician who wishes to avail himself of this broadened concept of human illness will need an understanding of the dynamics of personality function. Familiarity with methods of study and the application of treatment utilizing these psychodynamic principles will be necessary. A knowledge of the signs establishing a functional element in a given case is necessary because the diagnosis of a psychosomatic reaction should not be made by exclusion, but on the basis of the constellation of facts and findings occurring in each disorder.

Some basic elements of this knowledge will be presented but complete exposition is impossible in the time available for this presentation.

II. Basic Factors in Human Behavior

Man enters this world with certain tissue potentials or "inherited traits." This basic material cannot be exchanged for a later model but even inherited traits may be modified by time and circumstances. The changes in eye coloration, hair color and body configurations are examples. Within the limits of these basic potentials every individual has a wide range of possible behavior, and the course of his life stream will depend upon the interaction of his drives and the demands of his environment. "All men are by nature equal, but they differ greatly in the sequel." —(Early American Almanac.)

The basic energizing forces or drives, or "instincts" as they are sometimes called, have been the subject of much speculation and the object of much controversy. Confucius commented that the basic needs of man are for food, drink and women. These ideas were not improved upon until Sigmund Freud, as a result of careful clinical observations, developed his theory of the "instincts" or drives. After some modification of his ideas in terms of further work and observation, Freud divided the primary drives of man into the libidinous drives, or sex strivings or creative impulses or love instinct; the ego instincts, or self-preservative instincts, which he considered to be fused with and largely identified with the libidinous drives; and the aggressive, or hate, or death instinct. These drives are considered basic or fundamental factors in human behavior and much of human behavior and misbehavior is best explained as man's attempts to satisfy these drives while at the same time adapting himself to the demands of the culture in which he lives. The development of these drives and the ways in which they are adapted to environmental regulations have been abundantly studied and reported in the literature.

III. Technique

I believe that a study of patients in terms of these modern principles will result in the relief of many persons who now shop through our clinics, absorb our laboratory budgets, clutter up our surgical schedules and complain about the general effectiveness of the medical care they receive. It is also believed that a great many of these patients can be effectively treated by the family physician if he will take the time to consider all the factors in each case, and not be misdirected by

some trivial somatic lesion or ambivalent laboratory report, which if really true could not explain the patient's symptoms. There are certain cases which will require reference to a skilled psychotherapist, and there are also patients who need the attention of a psychiatrist while being treated by another physician, but in any case, evaluation of the psychogenic elements will aid in a more complete diagnosis and more effective treatment.

The first step in any type of case is the history. Let the patient tell his story—all of it—clarifying the details by questioning and by checking with his friends or relatives. The clue to the nature of his disorder is nearly always present in any good history. Many physicians confronted by a "neurotic history" and by normal clinical and laboratory findings feel lost as to how to proceed. The following suggestions may be helpful.

The physician must remember that the patient does have symptoms and these symptoms do cause discomfort or he would not seek medical aid. The terms "imagination," "pretend," "forget it," and the like, have no place in the formulation of an explanation of the symptoms.

Anxiety, either unobjectified, or accompanying a fear of operation, pain, the illness, or death is the most common symptom in any sick patient. Physiologists have repeatedly demonstrated the alterations in physiology produced by anger, fear and other emotional states in both man and animal, changes principally inaugurated *via* the autonomic pathways and abetted by the endocrine system. These changes may and often do produce subjective sensations which one person may note and another ignore. In either case the change in function and the sensation produced are *normal* components of anxiety. The normality of these body reactions to emotional stimuli must be stressed and re-emphasized in the physician's thinking and in his discussions with the patient. In many instances all of the symptoms are due to the patient's increased attention to and awareness of normal body functions. The symptoms may persist or intensify if a chronic psychologic stimulus produces a continued state of autonomic-hormonal imbalance.

Acceptance of the above explanation of the symptoms leads both patient and physician to a consideration of the nature of the stimulus which keeps this individual in the emotionally disturbed state. Inquiry by the physician often elicits the information that the cause of the anxiety, so far as the patient is concerned, is worry over his health, fear of death or some related complaint. At the moment this may be true, the patient having forgotten the original precipitating situation in terms of his immediate concern over his health. The sequence of events is frequently as follows: Some situation has brought about an anxiety reaction and the body has shown a normal response to it. The patient notes this response in one or more of his body systems and wonders if all is well. If the anxiety is repeated or of a chronic variety he notes the recurrence of the previous physiologic phenomenon. He now becomes concerned over his health, and consultation with sympathetic neighbors and a visit to an overworked and hurried physician may supply him with terms such as "hypertension," "leakage of the heart," "hyperacidity," "mucous colitis," or some other so-called entity. The patient now has anxiety over his health added to the original anxiety-producing situation, and he becomes aware of his bodily functions and dysfunctions to the exclusion of most other interests. At the time of the interview the chief cause of his anxiety may be his concern over his health, a concern that could have been avoided by a more adequate explanation and understanding of the symptoms at the time of their onset.

Having prepared the patient's attitude toward his symptoms by the preliminary acceptance of his symptoms in his own words and by emphasis on the normality of such functions in emotional states, and having reviewed the development of his anxiety over his health, the emphasis in the discussion is then shifted to seeking the basic or original cause of the anxiety or emotional disturbance. Preconceived or fixed ideas as to the nature of the conflict material, and attempts to find this material by probing questions is to be avoided. Patience and a desire to understand the facts as they occur in a particular case will reveal any significant information of which the patient is aware.

In many patients the anxiety-producing situation will prove to be some simple problem in adjusting the individual's needs to the environmental demands. It may be a fear of being killed in battle, worry over family, concern over business, or faulty technique in sex relations. In a few cases such attacks have been induced by careless statements by physicians examining the patient for insurance, employment, or military service. In some the exposure is too long and too great and we have acute confusional states as, for example, in battle zone fatigue. These superficially induced anxieties usually respond to an understanding of their origin and recognition of their manifestations as a result of normal physiological processes which the patient has over-emphasized because of misinformation and misunderstanding or because of unfortunate circumstances. The earlier they are treated the better the prognosis. The patients of this group must be warned that fu-

ture emotional upheavals may precipitate a recurrence of the symptoms, but the symptoms are to be looked upon as a manifestation of normal function in an emotional state, and his efforts for relief should be directed toward a solution of the emotional problem.

CASE REPORTS

CASE 1.—The obese 47-year-old wife of a tenant farmer entered John Sealy Hospital complaining of a "goitre." Inquiry revealed that she had had attacks of a choking sensation followed by feelings of suffocation, "fluttering" of the heart, weakness, and fear of death. The attacks were most severe in the evening and at night and were less severe when she was busy with her work during the day. The attacks started three months prior to admission and were of increasing severity, having become especially severe in the three weeks before admission. Physical and laboratory studies, including electrocardiogram, basal metabolic reading, and fluoroscopy of the upper gastro-intestinal tract revealed no lesion which could explain her symptoms. The patient had been a placid, hard working, poorly educated country woman, with three normal pregnancies, no previous operations or serious illness and few interests outside her home and family. The first attack came while she was helping her husband push a light truck. The symptoms recurred the following day, and in describing them to a neighbor lady she was told that they "sounded like a goitre." After repeated attacks brought increasing concern she visited a physician, who tentatively concurred in her diagnosis and the attacks grew in severity, eventually making hospitalization necessary.

A resurvey of the history revealed the following data. The first attack came at a time when the patient was fearful that she was "losing her husband" because he was no longer affectionate toward her and the children, had not contacted her sexually with his accustomed regularity and was spending much time away from home. In fact, they were starting the truck so he could go to town for the evening. The patient felt that her whole married life and security were being threatened. Three weeks prior to admission she observed her husband, unknown to him, in the company of a younger and more attractive woman with whom she had good reason to believe he had spent the preceding night. At this time her symptoms became much worse, she consulted a physician and was finally sent into the hospital. In the interval between "getting the goods" on her husband and entry into the hospital they had reviewed his indiscretions in a few stormy sessions. He had promised to forego such pleasures in the future and had in fact resumed his previous affectionate behavior toward her and the children. The patient still felt troubled in "swallowing her pride" and was undecided as to the desirability of continuing as his wife. She recognized that thinking of her troubles always made her symptoms worse but still believed she "had a choking goitre," and that her life was uncertain.

Treatment consisted in pointing out the coincidence of the onset of her marital troubles and the onset of her symptoms, reviewing the array of normal reports and physical findings, and explanation of her symptoms as due to anxiety with muscle tension and the various bodily sensations. With an understanding of the origin of her symptoms, they subsided, but she expressed more hostility toward her husband and would weep as she spoke of her marriage. After two or three letters in which he repeated his repentant attitude, and some talk by the physician on the desirability of giving him another chance before breaking up the home, her attitude improved rapidly, and she finally decided to return home and resume her former life.

In other patients the anxiety will be found to be on a more subtly conditioned basis and the symptoms are symbolic in nature. Patients in this group will get some relief from an explanation of the worry over the state of their health. The original or basic anxiety will persist, however, and the symptoms recur so that these patients may well doubt that the physician's explanation covers all of their ailments. The handling of these persons from this point on requires the services of a trained psychiatrist, but these first steps in management by the referring physician are of paramount importance in influencing the patient's attitude toward his problem and to the problem of psychotherapy.

CASE 2.—A 21-year-old medical student was referred by an internist because of palpitation, nausea, and fear of death which assumed panic proportions and caused him to leave his classes abruptly. The symptoms were colored by the subjects of the most recent postmortem examinations. This type of history is fairly typical of the common "medical student's disease," but the student was not reassured, as is usually the case, by the imposing array of normal physical and laboratory findings. For this reason he was referred to the psychiatrist. In this case the presenting symptoms were only the most recent developments in a long history of obsessive fears of the father's death by accident, his own sudden death at the hand of a wrathful God, and attempts to avoid these events by compulsive praying and an ever-growing series of protective rituals. This case required prolonged analysis and synthesis before recovery, and was obviously not a case for superficial therapy that could be given by the physician in general medical practice.

The physician will see a few patients who have symptoms in the sensory systems or in the voluntary motor system, who are said to have "conversion hysteria." They are characterized by bizarre or unusual anesthesias, paralysis of unanatomic distribution, or disturbances in the special senses. These patients should be referred to the psychiatrist as soon as the condition is suspected. Use of suggestive therapy in the form of electric stimulators, uncomfortable casts, and so forth, may produce dramatic temporary relief of symptoms, but they offer no permanent results and often make the patient hostile and defensive toward any future psychotherapeutic efforts.

In the preliminary phase of cases to be referred the examining physician can contribute much to the future success of the psychotherapist if he will explain to the patient that there is no organic lesion that can explain such a symptom complex. He should assure the patient that many disorders of body function are to be understood only as the body's reaction to emotional disturbances of which the patient may or may not be aware. He must be assured that such states can be treat-

ed successfully, and that "Dr. X" is the person who understands and treats such conditions. Again the terms "pretend," "fake," "imagine," and so forth, have no truth and no use in these conditions.

The simple method of approach in the psychosomatic medicine cases has proven of great value. Its simplicity permits its use by any well trained physician and by the student working in the medical and surgery clinics. In those patients amenable to this superficial method of handling it brings a gratifying relief of symptoms. In the group suffering from a well fixed psychoneurosis or the early phases of a psychosis it makes referral to the psychiatrist easier for the physician and less traumatic for the patient. Patients who do not respond to discussion and explanation of the immediate situational material require the services of a well trained psychiatrist. Thus psychosomatic medicine defines itself as a re-examination of the art and science of the practice of medicine in terms of the new and growing body of knowledge concerning the ailments of man, knowledge resulting from the co-operative efforts of internists, physiologists, psychiatrists and other specialists. The modern question in the clinic is no longer—is the condition organic or functional? but how much of the condition is due to organic and how much to functional pathologic changes.

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ABSTRACT OF DISCUSSION

Dr. Arthur Schwenkenberg, Dallas: Dr. Ewalt within a very limited space of time has given us an excellent interpretation of a concept which is becoming increasingly more significant in medical approach.

I hope that everyone followed carefully his remarks and will read his presentation when published, as well as other articles dealing with the subject of psychosomatic medicine. By so doing one can hardly fail to appreciate that illness may manifest itself by signs and symptoms which may be due to either psychological or physiologocial factors or a combina- of both. As he stated, "the modern question in the clinic is no longer whether the condition is organic or functional but how much of the condition is organic and how much due to functional pathology."

Psychosomatic medicine emphasizes the same idea that psychiatry has been doing for many years; however, the term has only been used since 1926. As Dr. Ewalt pointed out it is not entirely a psychiatric problem but rather one in which all medical practice should be concerned. Medicine must recognize that emotional reaction of the individual, influenced by instinctive drive and modified and conditioned by environment and training factors, have much to do with the formation of the personality. There are patients who suffer with symptoms entirely psychogenic in origin. This is evidenced by the vast number of patients suffering with psychoneuroses. There are conditions where psychogenic factors must play an important part in upsetting the physiology which leads to structural changes in the organ—soma—for example, duodenal ulcers and many skin diseases. Then there are also many other diseases, especially when the autonomic nervous system is at fault, which are still unexplained and yet where psychopathology can readily be demonstrated.

Students of psychosomatic medicine do not ignore the fact that there are many diseases which may be predisposed largely by constitutional factors, but nevertheless an evaluation of the personality is necessary.

If psychosomatic medicine does nothing more than arouse enough interest on the part of medical practioners so that they will regard the patient as a total functioning unit, much will be accomplished. This, I think, will lead to a better understanding of psychopathology, and medical teachers will realize that psychopathology should be taught parallel with organic pathology. The importance then of the formative period in life—in the infant and the child—will become apparent, and more attention will be given to the psychology of the child just as attention is given to physiology. The family physician, the general practitioner and certainly the pediatrician will appreciate the tremendous part he plays in influencing better personality formation. As a matter of fact, all practitioners of medicine, specialists included, will find that they will have a broader understanding of human illnesses, and they will be better doctors. They will certainly be in a better position to interpret more accurately symptomatology and give the patient a better explanation for his symptoms. Patients will then be less inclined to seek help from those outside of the medical profession, whose success depends chiefly upon psychotherapy since they treat the patient rather than the disease.

It seems to me that psychosomatic medicine has reduced much of what psychiatry made to appear very complicated, to a simple common sense approach; and there is every indication that in time the term psychosomatic medicine will be needless, as the term will be incorporated in the term medicine.

WOMEN STUDENTS IN MEDICAL SCHOOLS

The British correspondent of *The Journal of the American Medical Association*, in the April 15 issue, reports a changing point of view regarding women medical students in Great Britain. He says:

"In London there are twelve medical schools; one school admits only women students, two take a small proportion of women and the remaining nine have expressed inability to take women. . . .

"The war has produced an increasing demand for women doctors, and thus again brings up the subject of greater facilities for the medical education of women. . . The minister of health has declared himself unable to press acceptance of women on medical schools. . . . The senate of London University appointed a highly authoritative committee to report on the desirability of providing facilities for the medical education of women. Six of the seven members of the committee recommended the opening of all London medical schools to women on terms of equality with men. By an overwhelming majority the senate approved this. The *Times* states that as a result all the nine schools which exclude women will probably admit them. . . ."

THE PREPARATION OF PLASMA

JOHN H. GLYNN, M. D.
FORT WORTH, TEXAS

The present program for the procurement of plasma and serum albumin for the armed forces easily ranks as the greatest biological enterprise of all time. The fact that it is being accomplished so well is a significant tribute to the coöperation existing between government agencies, pharmaceutical manufacturers and the American Red Cross.

The fundamental principles governing the preparation of plasma were laid down several years ago. Serum albumin is a newer development but, even here, methods of preparation were firmly established a few years ago. The quality of both plasma and serum albumin being delivered to the armed forces at the present time is appreciably better than it was when the first preparations were made. This does not imply that the first preparations were less effective than those now being made. Both have equal therapeutic value. It merely means that the margin of safety has been extended in present-day preparations beyond what was thought possible when the program first began. This has been accomplished, not by any major change in methods, but by meticulous attention to small details.

PLASMA

The preparation of plasma and serum albumin begins at the pharmaceutical manufacturing laboratory. Here, the donor bottles are assembled and sterilized for shipment to the Red Cross Donor Center. From the beginning everyone knew that pyrogen-free water was necessary for the preparation of citrate solution. Later, other small details received attention. Each container of dry sodium citrate must be tested for pyrogens before dissolving in pyrogen-free water. Each needle must be carefully inspected on the inside before resharpening; rubber stoppers, stainless steel inserts, and rubber tubing must receive careful inspection after cleaning and rinsing in pyrogen-free water; not more than two hours must elapse between the time the citrate solution is made up and the assembled donor bottle is placed in the sterilizer. These are some of the small details which contribute to the extra margin of safety now given both plasma and serum albumin.

The sterile donor bottles, fully assembled with citrate, rubber tubing and intravenous needle, are sent to the donor center in sealed containers. A system of numbering each individual bottle insures that no bottle remains at the donor center more than a few days before it is used. The bottles filled with blood are returned to the processing laboratories in sealed refrigerated containers. Each bottle carries a tag placed on it by the donor center. These tags carry the donor's name, serial number, other routine information as well as any special information (possible contamination through error in bleeding technique, for example) that might be useful to the processing laboratory. Each bottle is also accompanied by a sample of the blood it contains in a separate serology tube; this sample being obtained by stripping the rubber tubing of its contents after the bleeding is finished.

Upon receipt in the laboratory the donor bottles are properly recorded and placed in a refrigerated room while the serology tests are made. Satisfactory tests permit the blood to be processed; unsatisfactory bloods are discarded, and the physician in charge at the donor center notified of the results of the tests.

All processing is governed by regulations formulated by the National Institute of Health. The first step is the separation of the plasma by centrifugation. This is done at a temperature just slightly above freezing. A centrifuge operating at about 2,000 r.p.m. for about 20 minutes is most efficient for the standard donor bottle containing about 500 cc. of citrated blood. The bottles are then removed from the centrifuge and the supernatant plasma withdrawn, under aseptic technique, into a large sterile pooling bottle. The pooling bottle is usually of about 5 gallons capacity and performs the dual function of providing a convenient reservoir for filling into final containers as well as reducing the titre of isoagglutinins for any one blood type.

The pooled plasma is next transferred through a closed system into final containers and frozen. The liquid plasma is frozen as a shell on the inside of the final container by rotating the bottle on its side in a cold bath at about 15 to 20 r.p.m. The temperature of the freezing bath is very low (—65 C.), so that rapid freezing will occur and fractional crystallization of plasma constituents be prevented. The frozen plasma is then dried under high vacuum without passing through the liquid phase again. In general the first stage of drying removes 90 per cent of the water, requires sixteen to eighteen hours, and the temperature of the plasma does not rise above —15 C. since the heat of sublimation supplied by the surrounding air (or water bath) is discharged by the process of evaporation. The second stage removes about 9 per cent of the water, requires three or four

From the Serum Albumin Plant, Armour and Company, Fort Worth.
Read before the Tarrant County Medical Society, State Medical Association of Texas, Fort Worth, February 1, 1944.

hours, and the temperature of the plasma slowly rises. The final stage in which the last 1 per cent of moisture is removed takes another three or four hours, and the temperature is brought up to that of the surrounding environment. The bottles containing the dried plasma are then removed from the vacuum system and stoppered under vacuum.

The entire process is carried out aseptically. Under the regulations of the National Institute of Health, sterility tests are performed on the pooled plasma prior to filling and freezing and on a specified number of final containers. Safety tests are required on the final product, using both mice and guinea pigs, and pyrogen tests are performed in rabbits.

SERUM ALBUMIN

In contrast to the preparation of plasma, the preparation of serum albumin does not require rigid aseptic technique throughout but does require meticulous cleanliness. Aseptic procedures are almost impossible because of the nature of the process and are not necessary because the final product is sterilized by filtration just prior to bottling in liquid form. Indeed, contaminated plasma which must be rejected for dried plasma, may be safely processed into serum albumin.

The first step in the preparation of serum albumin, consists in the separation of plasma from red cells by centrifugation. However, some of the processing laboratories find it more convenient and more efficient to use a continuous centrifuge of the Sharples or DeLaval type rather than the bucket centrifuge carrying individual donor bottles. The continuous centrifuge is much more rapid and the yield of plasma slightly higher. Instead of pooling a few dozen donor bottles into a larger pooling bottle, plasma for serum albumin preparation is usually pooled in much larger volume. It is customary to pool the entire amount of plasma secured in one twenty-four hour period from the donor centers. This comprises about 1,500 bleedings in a single container.

The first fraction is removed by the addition of ethanol-water mixture and separation of the precipitate in a centrifuge. Further fractionations are carried out at a temperature below the freezing point of water by successive additions of ethanol-water mixtures under carefully controlled conditions of temperature, *p*H, and salt content. During these successive steps, protein fractions other than albumin are removed by centrifuging until the serum albumin is finally precipitated and dried.

It is then held in dry form under refrigeration until various control tests are completed. These include the usual safety, toxicity and pyrogen tests as well as additional stability tests under various conditions. Having passed these tests the dry serum albumin is then redissolved in pyrogen-free water at a temperature about 1 degree above freezing and sterilized by filtration at this temperature. It is held in sterile bulk bottles of large capacity until previous tests are repeated together with sterility tests. Next it is brought up to room temperature and filled aseptically into final containers in liquid form.

The final container is a double ended glass vial of 100 cc. capacity containing 25 grams of serum albumin in solution. This 100 cc. is osmotically equivalent to 500 cc. of plasma or 1,000 cc. of whole blood. It is packaged in a tin can complete with sterile needles, tubing and everything necessary for immediate administration. The principal advantages of serum albumin over plasma in the treatment of shock lie in the small size of the package from a transportation standpoint and the fact that it is in liquid form ready for immediate use.

The other protein fractions of plasma which are removed in the preparation of serum albumin have been, up to the present time, stored in a stable condition. Recent work has proven their usefulness in various conditions and several new "by-products" of human serum albumin are now under clinical study and will soon be available.

CAUTION URGED IN USE OF "PATULIN" FOR COMMON COLD

Caution in considering the efficacy of a new preparation for the common cold, called "patulin," is advised by *The Journal of the American Medical Association* for December 25. *The Journal* says in part:

"Recent reports from London describe work with a preparation called 'patulin' for the common cold. This substance is a metabolic product of penicillium patulum and has now been identified. . . ." Nearly 100 patients were treated and 85 untreated were observed as controls. "One of the patients showing dramatic improvement was Gye (one of the investigators) himself. A high proportion of the persons treated seemed to show recovery in a much more rapid and complete fashion than would have been expected without treatment. From this small sample the statistician Major Greenwood deduced that the results in the treated group would have been most likely to occur from pure chance alone. In the *Lancet* a week after publication of these reports appeared a communication from three investigators, headed by Stuart-Harris, which briefly records the results of giving patulin to 100 patients with the common cold and of not treating 100 alternate persons. The proportion of cases which showed clinical improvement was substantially the same in the two groups; the writers conclude that patulin had no demonstrable effect on the course of this series of colds as compared with the natural evolution of the disease. Pending the outcome of further studies, it would be unwise to view this new form of treatment of colds with too much optimism."

THE SULFONAMIDE TREATMENT OF GAS GANGRENE

ROBERT L. SEWELL, M. D.
FORT WORTH, TEXAS

In the last few years the experiences in gas gangrene infections in England,[1, 2] Canada,[4] and in this country have converged about one point. That point is the efficacy in both prophylaxis and treatment of these infections by the sulfonamides. Before this the multiplicity of methods and of therapeutic agents recommended for treatment produced a huge but conflicting literature on the subject.

In World War I, gas gangrene carried with it a 50 per cent mortality in the Allied Armies, while the German losses were in excess of 100,000 men. The heavily manured fields of France in which the fighting took place contributed largely to high incidence of infection. Furthermore there was great delay in getting injured men to stations where they could be treated with whatever means were available, and these were largely ineffective. Born of necessity, amputation was the treatment of choice, and so it has remained until recently.

The first serious recommendation of a more conservative method came in 1933[3] from Kelly who was utilizing irradiation with simple incision and drainage with success. Since the advent of the sulfonamides the possibilities of the more conservative management have been materially furthered, although groups interested in these infections have come to place far more reliance in the sulfonamides than in irradiation.

During this latter period the clinical cases of gas gangrene have been studied and treated more scrupulously so that now we are beginning to realize that there are several phases of the disease. Whereas previously gas gangrene was considered an entity, starting and progressing in muscle, with rapid and often fatal course, we have seen instances in which it has started and progressed in the subcutaneous tissues only; there have been cases where a pure infection by Cl. Welchii has lain practically dormant for over a week and subsequently responded completely to simple incision and drainage plus the use of sulfadiazine.

The blood supply of the affected part is quite important in the course of the disease. Compound fractures and peripheral vascular disease most often form the background for the infection. In the former the presence of devitalized muscle plus contamination fosters the infection. In the latter an amputation may leave a small focus of dead, or at least poorly nourished, tissue in the stump in which the bacilli may grow. Their presence in small indolent ulcerations of the leg is common, and their subsequent reappearance following operation a matter of record.

At any rate the infection, if in the subcutaneous tissues, may tend to localize itself and produce an *abscess* or *cellulitis* rather than a *gangrene*. Occasionally, we suspect, the cyanosis or gangrene has been laid to the infection when it was primarily due to vascular damage. On the other hand when we speak of conservative surgical treatment we do not mean to exclude amputation in case of severe vascular damage with maceration and infection where it is often the only means of saving life. We do hold that these infections are amenable to treatment by the sulfonamides (in the presence of a fair blood supply) coupled with adequate drainage of the infected areas.

In peacetime the incidence of gas gangrene is low, so that animal experimentation necessarily plays a large part in determining therapeutic possibilities. The first of the procedures described here began in 1938 after we had had some success with the clinical use of irradiation and conservative surgery.[5] The initial efforts in the laboratory were made with guinea pigs, into whose legs a small amount of the infectious inoculum was administered. These animals were quite susceptible to the infection, and usually died in from ten to eighteen hours. On the other hand the disease seemed quite generalized and spread rapidly from the leg to the abdomen and thence throughout the body. The only close similarity between it and human infections seemed to be the production of gas. Irradiation of these animals allowed only a few per cent more survivals than was present in the control group; from this no inferences could be drawn.

Endeavoring to find an animal in which the disease would not be so fulminant, and which would also react more like the human, we tried dogs. Here the main difference was one of time. Whereas the incubation period of the infection in humans is rarely under twenty-four to forty-eight hours, in dogs the disease is produced in three or four hours when edema and small amounts of gas appear, and the part becomes tense and discolored. In ten or twelve hours the animal becomes listless, will not bear weight on the involved leg, rapidly sickens, and dies in about twenty-two hours. The infection produced remains fairly well localized although a bacteremia is usually present, too. In the event that the dog survives until the necrotizing process involves the skin and drains spon-

From the Department of Surgery of the University of Rochester School of Medicine and Dentistry.
Taylor Award of the Rochester Academy of Medicine.

taneously, there is a good chance for recovery without treatment; about one out of ten animals live.

Inasmuch as laboratory animals such as the dog are able to survive small doses of the infectious inoculum of Cl. Welchii, enough must be given to precipitate a fatal disease. This accounts for the correspondingly early appearance of the disease in animals as contrasted to man where the disease must begin not from vegetative forms and toxin but from only a few Welchii spores. By the same token it develops more slowly.

Irradiation of dogs after the disease was established brought with it proof that this method doubled the number of survivals in any group of infected animals when the dose of inoculum was small, but even this did not bring the figure above 30 per cent. On the other hand our first experience with the sulfonamide drugs showed unmistakable superiority of the method both in the number of animals saved, and also in markedly diminishing the severity of their disease. The first sulfonamide tested was sulfadiazine, and while no other drug superior to it has been found, the results with all of them will be described.

When the sulfonamide drugs are administered orally an effective therapeutic blood level is established slowly over a period of about six hours. When given intravenously, the blood concentration is immediately raised to an adequate level. For instance, in the

CHART 1.—*Results Obtained With Sulfadiazene in Experimental Gas Gangrene.*

	Number of Dogs	Survival Rate
Sulfadiazine given *orally* three hours *before* infection	25	88%
Controls	37	16%
Sulfadiazine given *intravenously* at *same time* as infection	25	92%
Controls	25	12%
Sulfadiazine given *orally* three hours *after* infection	25	28%
Controls	6	16%

Cl. Welchii infected dogs, when sulfadiazine is administered by the oral route three hours before the infection is initiated, the survival rate is 88 per cent. Of the controls 16 per cent survived.

In contrast, when the drug is administered orally *after* the disease is established (three hours after injecting the inoculum) the survival rate drops to 28 per cent. This indicates that when the drug is given any time up to the time of infection, the effectiveness is high, but after clinical signs of gas gangrene have appeared, the results are far poorer. To speculate about an analogy with human infections (remembering that it takes far longer for them to develop), onset of therapy any time within the first twelve hours after injury and exposure would give a satisfactory therapeutic effect, as one would still be twelve to twenty-four hours ahead of the first signs of the disease.

To summarize the results obtained with sulfadiazine, data are presented in Chart 1.

With sulfadiazine tentatively established as an adequate therapeutic agent, two further steps became necessary. One was the testing of the other sulfonamides under the same conditions, and with comparable blood levels established in the animals. The second was to test these drugs against others of the Clostridium family of gas forming organisms to see if the action was similar.

The drugs chosen for testing were sulfanilamide, sulfathiazole, and sulfadiazine. These were all given at the same time that the infectious inoculum was injected, with rapid establishment of a satisfactory blood level by intravenous use. The blood level was maintained by both intravenous and oral therapy in the case of sulfathiazole and sulfanilamide simply because a smoother high blood concentration could be maintained, thus allowing more accurate comparison. As a relatively smooth curve could be obtained by the intravenous method with sulfadiazine, oral administration was not used. The only reason the intravenous method was used was that it was a device by which we could initiate and adjust the blood levels.

The organisms tested in addition to Cl. Welchii were the three which were found to be the causative agents in 25 per cent of the gas gangrene cases of the last war: Cl. Septicum, Cl. Novyi, and Cl. Sordelli. The results are shown in Chart 2. Twenty-five animals were used in each separate experiment.

Cl. Welchii responded best to sulfadiazine, with sulfathiazole second.

The Cl. Septicum infections differed from the Cl. Welchii infections only in that less gas was produced, and that the disease was uniformly fatal in the untreated animals. Again sulfadiazine was best, sulfathiazole second, while sulfanilamide did not save a single animal.

The Cl. Novyi infections alone were largely resistant to chemotherapy. Practically no gas was formed, but a slower disease ensued with marked edema and induration of the tissues of the thigh and leg.

The Cl. Sordelli infections developed relatively little gas, and as a whole took a longer time to appear. Again sulfadiazine was superior to both sulfanilamide and sulfathiazole in the treatment.

Clinical results with patients during this period are encouraging. Three patients with this infection have been treated by sulfadia-

zine and incisions for drainage. The first, a relatively mild infection, was in the thigh of a negro male. It was a slowly extending crepitant lesion, in both muscle and subcutaneous tissue. Neither irradiation nor sulfathiazole was effective. Sulfadiazine plus simple incision and drainage brought about a rapid cure. This instance is far less significant than the others because of its mildness.

The second case was a frank, spreading gas gangrene of the arm, which developed after a compound fracture in a professional skater. Wide incision and drainage plus sulfadiazine, locally and by mouth, satisfactorily arrested the disease. Ochsner stated in 1938 that he had never seen nor heard of a patient with gas gangrene of the arm recovering.

CHART 2.—*Sulfonamides in Clostridial Infections and Percentage of Recoveries*

	Cl. Welchii	Cl. Septicum	Cl. Novyi	Cl. Sordelli
Sulfanilamide	20%	0%	0%	40%
Sulfathiazole	44%	28%	0%	32%
Sulfadiazine	92%	72%	4%	80%
Controls	12%	0%	4%	12%

The third case was of remarkable severity. It developed after a cecostomy in a 77-year-old male with intestinal obstruction. The abdominal wall from costal margin to symphysis was involved on the right side and partly on the left, and the infection spread also to the scrotum and thigh. Multiple incisions were made and sulfadiazine was applied locally and given by mouth. Convalescence was slow but complete, and the patient is now alive and well.

Also significant is the fact that we have seen in the last two years only one case, whereas in the preceding five years we had had an average of three cases a year. In the past two years patients with compound fractures have all received sulfonamide therapy locally or parenterally, or both; instances of amputation for peripheral vascular disease have been treated similarly where there was evidence of infection. It would appear that this prophylactic use of the sulfonamides probably reduces the incidence of the infection.

SUMMARY

1. Experimental Cl. Welchii infections in dogs respond best to sulfadiazine. Sulfathiazole is second in effectiveness, while sulfanilamide and irradiation are the least effective.

2. Treatment given before actual appearance of the infection is far superior to that given after it is established.

3. Against other Clostridial organisms (Sordelli, Septicum) sulfadiazine was most effective, sulfathiazole second, and sulfanilamide last. Cl. Novyi infections did not respond to the sulfonamides.

4. Clinical trials in three patients suggest that sulfadiazine plus adequate incision and drainage is good treatment.

5. The apparent lowered incidence of gas gangrene infections during the past two years is probably a reflection of the prophylactic use of the sulfonamides in contaminated wounds.

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GASTRO-INTESTINAL TUBERCULOSIS

THE MEDICAL ASPECTS

GEORGE M. UNDERWOOD, M. D., F. A. C. P.
DALLAS, TEXAS

Gastro-intestinal tuberculosis is usually a complication of pulmonary tuberculosis—reinfection tuberculosis, if that term is preferred. It can be diagnosed with reasonable accuracy, and, in many instances, the proper medical management may be quite successful.

ETIOLOGY

It is, therefore, obvious that the etiology of gastro-intestinal tuberculosis is the tubercle bacillus, and while gastro-intestinal tuberculosis is usually secondary to pulmonary tuberculosis, primary gastro-intestinal tuberculosis does occur. Primary gastro-intestinal tuberculosis is more often an incident in childhood tuberculosis and, clinically, differs little from the secondary type of disease.

There are four methods by which secondary gastro-intestinal tuberculosis may supervene: (1) tubercle bacilli coming in direct contact with the gastro-intestinal mucosa in the form of swallowed sputum; (2) hematogenous infection; (3) immediate extension from an adjacent focus; and (4) lymphatic extension. The last two types were not observed by Cullen[6] in his series of 1,043 autopsies of tuberculous patients, and will not be discussed.

Most observers believe that intestinal tuberculosis is more frequently caused by the exposure of the mucosa to sputum contain-

From the Medical Department Section of Gastro-Enterology, Dallas Medical and Surgical Clinic.
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ing tubercle bacilli, for these reasons: (a) a majority of cases of gastro-intestinal tuberculosis are associated with a positive sputum; (b) the incidence of intestinal tuberculosis varies directly with the number of tubercle bacilli in the sputum; (c) the physiologic ileocecal puddling or stasis exposes the mucosa to the tubercle bacilli for a longer period of time; (d) lymphoid tissue, which is believed to be susceptible to tuberculous infection, is abundant in the ileocecal area; and (e) infection by contact may be produced by feeding experimental animals sputum containing tubercle bacilli. Incidentally, McConkey and Smith, quoted by Burke and Aronovitch[3] in 1933, observed that guinea pigs maintained on a diet poor in vitamin C and fed tubercle bacilli "frequently developed tuberculous enteritis," while pigs maintained on a diet rich in vitamin C and fed tubercle bacilli, rarely developed tuberculous enteritis.

That hematogenous infection does occur is proved by the fact that (a) experimental animals can be infected by intravenous or intracardiac injection of tubercle bacilli; and (b) of Cullen's[6] cases of military tuberculosis, 63 per cent had gastro-intestinal tuberculosis.

PRIMARY GASTRO-INTESTINAL TUBERCULOSIS

Primary tuberculosis of the gastro-intestinal tract is extremely rare, and characteristically is found in children. Recently Bockus, Tumen and Kornbloom[1] reported 2 cases in boys, aged 15 and 14, which they encountered within a year. The first patient died of hyperplastic intestinal tuberculosis with obstructive complications, soon after coming under observation. The second patient was still alive at the time of the report, but apparently doomed. The chief clinical features were: diarrhea with marked nutritional disturbances, especially weight loss, fever, malaise, enlarged liver and spleen, anemia, and hypoproteinemia. In the latter patient tuberculous ulcers of the rectum and lower sigmoid were observed. By means of careful medical treatment this patient's life was prolonged; it was noted that the rectal ulcers healed, and tubercle bacilli disappeared from the stool. No other tuberculous lesion was demonstrable; hence the diagnosis "primary" gastro-intestinal tuberculosis.

Bockus and his associates quoted Medlar and Sasano, who injected tubercle bacilli subcutaneously into eight guinea pigs. Serial sections revealed tuberculous lymphatic involvement of the intestinal and mesenteric glands in every case, but tuberculous ulceration of the bowel was demonstrable in only one case. It is probable, therefore, that, clinically, tuberculous mesenteric adenitis is at least four or five times more common than tuberculous ulcerative ileocolitis.

Crohn and Yarnis[5] call attention to the fact that, since 1917, primary gastro-intestinal tuberculosis, usually a disease of childhood, has been decreasing. This decrease, in New York State, has paralleled the decrease of tuberculosis in dairy herds. They state that, until 1917, dairy herds were found to contain from 10 to 35 per cent positive tuberculin reactors; now, to be accredited, dairy herds must not exceed 0.5 per cent tuberculin reactors. Dr. Starnes tells me that during recent years, the bovine strain of tuberculosis has been decreasing among the Dallas county herds; recently, however, an outbreak of human tuberculosis was encountered in one herd.

INCIDENCE

The autopsy incidence of gastro-intestinal tuberculosis among patients dying of tuberculosis is high. In Cullen's series it was 70.4 per cent, and he quoted Crawford and Sawyer as reporting 66.8 per cent, Rubin 64.8 per cent, and Goldberg 80 per cent. Hardt and Cohen[7] found tuberculous enteritis in 71 per cent of "1,000 selected autopsies of patients who died of pulmonary tuberculosis."

The clinical incidence of gastro-intestinal tuberculosis among tuberculous patients is from 1 to 31 per cent. Burke and Aronovitch[3] studied 226 tuberculous patients, and made diagnoses of "tuberculous enterocolitis" in 31 per cent. They quoted Brown and Sampson's incidence of 28 per cent. McConkey's[12] incidence was reduced from 10.7 to 1 per cent by the routine use of cod liver oil and tomato juice.

LOCATION OR SITE OF INVOLVEMENT

As previously stated, the ileocecal area is the site of predilection. In Cullen's postmortem series of 734 cases of tuberculous enterocolitis, 89 per cent showed ileal and 75.8 per cent cecal involvement. It is possible to observe the rectosigmoid lesions through the proctoscope, and when present, these lesions enable the clinician to gauge the progress of healing of the intestinal infection.

The rarity of involvement of the stomach is interesting. Sullivan, Francona, and Kirshbaum[14] in a series of 11,480 non-tuberculous autopsies from Cook County Hospital, 1929 to 1938, report an incidence of gastric tuberculosis of 0.35 per cent, while during the same period one case of gastric tuberculosis was encountered in 75,000 surgical specimens. It is therefore no wonder that the stomach is presumed to possess some peculiar natural immunity to tuberculosis. Sullivan, *et al.*, reported one case of gastric tuberculosis with an obstructive pre-pyloric lesion, which was

presumed to be carcinomatous. After partial gastrectomy the pathologist made the diagnosis. The patient recovered. The diagnosis of "gastric tuberculosis" is rarely made clinically.

The presence of gastritis in pulmonary tuberculosis has been studied by Hardt and Cohen[7] in 1,000 autopsies on tuberculous subjects, and positive evidence found in 142 or 14.2 per cent. In this particular group of cases 84 had chronic superficial, 40 chronic atrophic, and 18 chronic hypertrophic gastritis.

As if to traverse the gastro-intestinal tract completely, tuberculosis of the anal region has been reported. Buie and Redding[3] reported 10 cases of anal tuberculosis, with biopsy confirmation in 6 of these. They warn against anal surgery in advanced tuberculosis, which may predispose to anal tuberculosis by infection of a raw surface.

Incidentally, in Cullen's[6] series, 20 cases of tuberculous involvement of the biliary tract were observed.

SYMPTOMATOLOGY

In considering the symptomatology of this disease, it is important to distinguish between functional symptoms and those of organic gastro-intestinal tuberculosis. Salkin and Cadden[13] state that in a tuberculosis sanatorium, the non-tuberculous dyspepsias outnumbered the tuberculo-enteritic dyspepsias by four to one. They also state that the systemic symptoms of tuberculous enteritis may include nervousness, insomnia, chills, fever, and failure to gain weight. The gastro-intestinal symptoms may include anorexia, lower abdominal cramping or pain, nausea, diarrhea, or alternating constipation and diarrhea, flatulence, and so on, even including vomiting. The failure of an individual to gain weight when the pulmonary lesion is apparently well in hand should cause one to keep the gastro-intestinal complication in mind.

Generally, the gastro-intestinal symptoms are produced directly or indirectly by the tuberculous ulceration. The fecal current is believed to be slowed, as a rule, by ulceration in the ileum, and hastened by ulceration in the colon.

It should not be forgotten that lesions indicating malignancy of the esophagus, stomach, duodenum, gallbladder and appendix may occur with approximately the same degree of frequency in the tuberculous and non-tuberculous individual.

DIAGNOSIS

In an adult with well-established pulmonary tuberculosis who has, or gives a history of, positive sputum, and who presents several or all of the symptoms enumerated, tuberculous ileocolitis should certainly be suspected. In 90 per cent of the cases the roentgenologist can solve the diagnostic problem. Even with roentgen aid, there is one lesion that may offer considerable difficulty of differentiation, that is, the so-called segmental ileitis, regional colitis, or non-specific granuloma.

I have not discussed the types of pathologic lesions encountered but if a hyperplastic intestinal lesion should be present, an abdominal mass may be palpable. This condition, however, is more common in children. The liver and spleen may be palpable, and when greatly enlarged, the diagnosis of amyloid disease may be suggested. When amyloidosis is present, it is said that the gastro-intestinal symptoms are considerably accentuated.

Kruger and Perlberg[11] condemn Woldman's phenolphthalein test as of no essential value in establishing the diagnosis of intestinal ulceration. They also state that 96 per cent of their cases of tuberculous enteritis exhibited active symptoms. Hewitt[9] says that of all the diarrheas in tuberculous patients, not more than 30 per cent are tuberculous enteritis. Yet, constipation does not prove the absence of enteritis as 5 to 8 per cent of patients are said to be costive. Sigmoidoscopic examination, already mentioned, may reveal the ulcers, and their study may establish the diagnosis. The presence of tubercle bacilli in the stool may be proved by the inoculation of laboratory animals.

In diagnostic summary, I should like to refer to the features of the second case reported by Bockus and his associates, namely: history suggestive of an organic bowel lesion, malnutrition, fever, malaise, palpable enlargement of both liver and spleen; anemia; hypoproteinemia; ulcers of the rectum demonstrated by the sigmoidoscopic examination; tubercle bacilli in the stool, demonstrated by animal inoculation; and, finally, x-ray demonstration of both a small and large bowel lesion.

Not only may the presence of tubercle bacilli in the stool be proved by animal inoculation, but the presence of tubercle bacilli in the fasting gastric content — swallowed sputum—may likewise be demonstrated by animal inoculation.[15]

TREATMENT

Since there is a direct relationship between the presence of tubercle bacilli in the sputum and tuberculous enterocolitis, everything possible should be done to close or cure the pulmonary lesion. This includes every type of surgical maneuver.

With regard to medical management, dietetic and vitamin therapy may be exhibited

at their best. McConkey's[12] early recognition of the importance of supplementing the hospital diet with cod liver oil and tomato juice, supplying vitamins A, D and C, is worthy of emphasis. He observed that these vitamins decreased the incidence of gastro-intestinal tuberculosis in his series from 10.7 to 1 per cent, after he had noted the healing effect among patients with gastro-intestinal tuberculosis.

Hardt and associates[3] presented a strong plea for the use of calcium at the meeting of the American Medical Association in 1938, and demonstrated its usefulness whether given by mouth, intravenously, or intramuscularly. They also indicated that ultraviolet radiation increases the usefulness of calcium. The value of artificial light or heliotherapy as a therapeutic agent in the treatment of ulcerative intestinal tuberculosis was first mentioned in 1920 by Blanchett, quoted by Burke and Aronovitch.[3]

The need of a high vitamin, smooth, high mineral diet is also urged by Hardt and his associates.[8] They also recommend the chewing of paraffin and expectoration for 30 to 45 minutes after meals, clearing the lungs of infected sputum as a means of preventing as well as healing intestinal tuberculosis. Kennedy and Snider[10] call attention to the value of an established smooth diet in intestinal tuberculosis. They temporarily omit most vegetables in order to decrease the residue, and recommend four *light* feedings daily instead of three. The need of thorough individualization is stressed by them.

The symptomatic use of drugs is taken for granted. However, one writer, Cherry,[4] has recommended trasentin as a drug which, like atropin, may cut down parasympathetic stimulation at the site of the ulceration, but does not produce the unpleasant "side" reactions of atropin. Following severe ulcerative damage by scarring and thickening of the bowel, anemia may develop, which does not always respond to iron therapy. Also, hypoproteinemia may occur in spite of a high protein diet, and even with blood transfusions may not be entirely controlled. Generally, forced feeding has been abandoned. Vitamin extracts are gaining a wide use, and appear to be worthy. Thiamin chloride hypodermically is quite useful in stimulating an otherwise lagging appetite. It is well to remember, however, that thiamin and vitamin A have been found toxic in excessive dosage.

Careful scientific dietetic regulation has apparently decreased the incidence of perforation in gastro-intestinal tuberculosis.

CONCLUSIONS

1. The incidence of enterocolitis in every autopsy series of tuberculous patients is approximately 70 per cent. This seems deplorably high. The incidence of gastro-intestinal tuberculosis among living tuberculous patients is probably between 1 and 10 per cent.

2. The prolonged exposure of the gastro-intestinal tract to sputum-containing tubercle bacilli appears to be the major cause of tuberculous enterocolitis.

3. The apparent role of a low vitamin diet in predisposing to secondary tuberculous enteritis is impressive.

4. A low residue, high vitamin, high mineral diet is not only curative, but preventive of certain cases of gastro-intestinal tuberculosis.

5. The application of our increasing knowledge of nutrition is becoming more general.

6. No beneficial therapy should be omitted in this disease: diet, calcium, vitamins, iron, paraffin chewing, trasentin, sunlight, and ultra-violet light are at times serviceable. Medical and surgical coöperation may be quite important.

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WASHINGTON OFFICE OPENED

An Office of Information in Washington, D. C., was opened on April 3 by the Council on Medical Service and Public Relations of the American Medical Association, *The Journal* of the Association reports in its April 8 issue. It is located in suite 900, Columbia Medical Building, 1835 I Street, Northwest. A large number of booklets, pamphlets and other published material are being sent to Washington, where they will be readily available to those desiring information concerning the various fields of medicine and the activities of the Association.

SPINAL ANESTHESIA

C. M. SIMPSON, A. M., M. D.
AND
E. O. BRADFIELD, M. D.
TEMPLE, TEXAS

Spinal anesthesia has obtained both a useful and popular place in the anesthetic field. This study is based on the use of spinal as the anesthetic of choice over a consecutive ten-year period in a clinic where other types of anesthetics and competent anesthetists to give them were at all times available. Out of a total of 24,467 anesthesias, spinal anesthesia was used 959 times, constituting as incidence of 3.8 per cent. (Table 1.) Its use throughout this period has changed slightly from year to year, varying from 64 to 159 cases, but in general the proportion has been fairly even, as have the proportions of inhalation ether and local anesthetic. (Table 2.) Ethylene on the other hand has shown a marked decrease and nitrous oxide an almost equal increase, which constitutes a partial return to previous usage where nitrous oxide was the only gaseous anesthetic employed. Cyclopropane has been used only since 1936 and has shown a definite increase, but, in spite of its many excellent qualities, it will probably again suffer a decline along with the other explosive and inflammable gases.

TABLE 1.—*Types of Anesthetic Used Over Ten-Year Period, 1931-1940.*

Ethylene	13,526	55.4%
Nitrous Oxide	3,096	12.6%
Cyclopropane	1,726	7.0%
Ether	184	.7%
Spinal	959	3.8%
Local	4,976	20.3%
TOTAL	24,467	100.0%

Owing to its peculiar nature and limitations spinal anesthesia shows a definite trend in its use in the various age groups. It is very rarely suitable for children, and in this series it was used only nine times in patients under 20 years of age, the youngest being 14 years. (Table 3.) The high incidence of its use in the seventh decade was in large part due to the unusual number of transurethral prostatic resections in the group.

The indications for the use of spinal anesthesia are numerous. One of the most frequent and rapidly growing is the use of electrical equipment in various forms. (Table 4.) The hot knife cautery was used in 156 cases, fulguration with cystoscopy in 51 cases, the x-ray in reduction of fractures in three cases, and the electrosurgical diathermy unit in 273 cases of transurethral prostatic resection. In these latter cases this anesthesia was indicated not only because of the electrical equipment but also by reason of the particular type of operation itself.

This largest group in which the spinal anesthesia was used for purely physical reasons was composed of cardiovascular diseases wherein hypertension played the chief roll. This may be questionably cited as a true indication for spinal anesthesia, as again in this series the large number of elderly prostatic patients played an important role. All of the patients with a systolic pressure of over 160 mm. Hg. were placed in this group arbitrarily. Probably the chief factors in favoring its use in this type of patient are its nontoxicity, the rapid recovery period, and the relative absence from postoperative nausea and vomiting which permit early ingestion of fluids.

Pulmonary lesions, both acute and chronic, form a very definite indication for spinal anesthesia. Included among these in this series were acute upper respiratory tract infections, subsiding upper respiratory tract infections, chronic bronchitis, asthma, and lung abscess. Statistics of several observers have shown that the incidence of postoperative pulmonary complications is usually quite

TABLE 2.—*Types of Anesthetic Used Over Ten-Year Period, 1931-1940.*

Year	Ethylene	Nitrous Oxide	Cyclopropane	Ether	Spinal	Local	Total
1931	1568	271	0	30	153	450	2472
1932	1385	246	0	23	85	358	2097
1933	1463	278	0	26	85	361	2213
1934	1515	229	0	14	86	436	2280
1935	1534	220	0	20	110	521	2405
1936	1369	256	301	21	113	519	2579
1937	1687	294	106	20	82	447	2636
1938	1389	255	230	8	64	560	2506
1939	768	523	584	8	86	788	2757
1940	848	524	505	14	95	536	2522
TOTAL	13526 (55.4%)	3096 (12.6%)	1726 (7.0%)	184 (0.7%)	959 (3.8%)	4976 (20.3%)	24467 (100.0%)

TABLE 3.—*Age Groups by Years.*

Year	Under 20	20-29	30-39	40-49	50-59	60-69	70-79	80 & Over	Not Recorded	Total
1931	7	14	24	32	31	29	10	1	5	153
1932	2	9	15	19	14	13	8	0	5	85
1933	0	6	15	14	10	16	20	1	3	85
1934	0	12	7	11	16	28	8	2	2	86
1935	0	12	7	16	16	31	20	3	5	110
1936	0	9	15	18	23	29	12	2	5	113
1937	0	3	12	19	9	24	11	0	4	82
1938	0	4	3	5	8	26	16	1	1	64
1939	0	4	5	5	12	40	19	0	1	86
1940	0	4	7	7	18	33	16	6	4	95
TOTAL	9	77	110	147	157	269	140	16	35	959

From the Department of Surgery, Scott and White Hospital, Temple, Texas.

as large or larger in cases where spinal anesthesia is used as in cases where inhalation anesthesia is employed, but as a matter of practice most surgeons do, as was definitely done here, deliberately select those cases with previous pulmonary lesions as the ones most suitable for spinal anesthesia. This is undoubtedly a factor in the high incidence of

TABLE 4.—*Reasons for Use of Spinal Anesthetic.*

1.	Electrical Equipment		483
	A. Cautery	156	
	B. Fulguration, Cystoscopy	51	
	C. X-ray	3	
	D. Transurethral Resection	273	
2.	Transurethral Resection		273
3.	Cardiovascular Disease		174
	A. Hypertension	154	
	B. Cardiac Disease	20	
4.	Pulmonary Lesions		68
	A. Acute Upper Respiratory Tract Infection	10	
	B. Subsiding Respiratory Tract Infection	15	
	C. Chronic Bronchitis	17	
	D. Pulmonary Tuberculosis	22	
	E. Asthma	3	
	F. Lung Abscess	1	
5.	Intestinal Obstruction		34
6.	Need for Relaxation		21
7.	Diabetes		18
8.	Toxemia		7
9.	Diagnosis		2
10.	Peripheral Vascular Disease		2

pulmonary complications following spinal anesthesia, and it was definitely true in these cases. The other most frequent conditions in which spinal anesthesia was felt to be indicated were intestinal obstruction and diabetes. Other indications were mild toxemia and peripheral vascular disease. One of the outstanding indications for the use of spinal anesthesia was the need for complete relaxa-

TABLE 5.—*Types of Operation in Which Spinal Anesthesia Was Used.*

1.	Genito-urinary Tract		381
2.	Abdominal		206
	A. Intestinal	178	
	B. Biliary Tract	18	
	C. Abdominal Exploration	7	
	D. Abdominal Wall Abscess	1	
	E. Secondary Closure	2	
3.	Hernias		148
4.	Gynecological		99
5.	Rectal		90
6.	Orthopedic—Lower Extremities		33
7.	Miscellaneous		2
	A. Diagnosis Only	1	
	B. Excision of Thrombosed Vein	1	

tion which the surgeon felt could be best obtained by this means. Obviously there were other factors involved in these cases which influenced the decision to use spinal anesthesia. In two cases of peripheral vascular disease the anesthesia was given for diagnosis only.

The types of operation justifying or demanding spinal anesthesia have been limited, for anatomical and physiological reasons, to those below the diaphragm. Heading this list were 381 operations on the genito-urinary tract, which again included the prostatic resections. (Table 5.) The abdominal operations, numbering 206, were next, with 148 cases of intestinal surgery accounting for the large majority. Operations upon the biliary tract, being in the upper abdomen, were relatively fewer in this series, as the tendency has been to confine spinal anesthesia in a large degree to surgical procedures in the lower abdomen. Hernias constituted a fairly large number of the cases, followed in turn by gynecological, rectal, and orthopedic operations on the lower extremities, in that order.

The contraindications for the use of spinal anesthesia are in general the opposite of the indications or conditions inferred by omission from the list of indications. That it should best not be used in children or young persons has been mentioned. Also its use above the diaphragm as such has been con-

TABLE 6.—*Contraindications for Use of Spinal Anesthetics.*

1.	Operations about Diaphragm.
2.	Hypotension, in general below 100 systolic.
3.	Children.
4.	Diseases of Cerebrospinal System.
5.	Blood Stream Infections, Including Syphilis.
6.	Profound Shock Due to Hemorrhage or Cardiovascular Collapse.
7.	Marked Limitation of Respiratory Exchange.
8.	Infection of Site of Puncture.

sidered too dangerous, nor should it be used in cases of hypotension where the systolic pressure cannot be brought up to around 100 mm. Hg. Other contraindications include diseases of the cerebrospinal system; profound shock due to hemorrhage or cardiovascular collapse; marked limitations of respiratory exchange; blood stream infections, including syphilis; and infections at or near the proposed site of puncture. Other contraindications may, of course, be encountered, but these in general cover the most important ones.

The technique used in this series was varied somewhat but on the whole was fairly well standardized. Pure novocain crystals in sterile ampules were used in all cases, the drug being dissolved in the cerebrospinal fluid. The height of anesthesia was controlled in part by the site of the puncture, the amount of the anesthetic, the amount of fluid used as a solvent, and by barbotage. The anesthetic was usually given in the upright position, but the lateral position was used very frequently and whenever indicated. The patient was always placed on his back immediately and the head lowered slightly.

An analysis was made of 321 cases showing the amount of drug employed in the various fields as indicated. An average amount of about 100 mg. was by far the most frequently used. (Table 7.) Doses larger than this were given chiefly for the lower abdom-

inal operations. Had many upper abdominal operations been performed under spinal anesthesia, as has been done in many clinics, the larger doses would undoubtedly have been used in such cases.

For various reasons supplementary anesthetics were used singly or in combination

TABLE 7.—*Amount of Drug Used.*

Novocain Mg.	Upper Abdominal	Lower Abdominal	Rectal, Bladder & Vaginal	Extremities	Total
—75	0	0	35	0	35
75-124	0	8	226	12	246
125-174	5	18	8	3	34
174-224	0	6	0	0	6
					321

on 94 (9.8 per cent) of the patients, for a total of 110 times. (Table 8.) The most frequently employed combination was ethylene-ether (64 per cent) with nitrous oxide next in order (19 per cent). Cyclopropane and local anesthetic were used in only 12 cases, with ether alone in 2, and pentothal sodium in 1 case. The last named anesthetic has recently been gaining much in popularity and will probably encroach somewhat on the fields of other anesthetics. Its combined use with spinal anesthesia, however, requires very close attention to both the respiration and blood pressure, and in general this combination is not to be recommended. By far the most frequent reason for the use of a supplementary anesthetic was that the operation lasted beyond the effective limit of the novocain, this occurring in 59 cases. The

TABLE 8.—*Supplementary Anesthetics.*

Anesthetic	Operation Too Long	Spinal Not Satisfactory	Nervous Patient	Planned Combination	Total
Ether	0	1	1	0	2
Ethylene-Ether	42	16	5	1	64
Nitrous Oxide	11	5	2	1	19
Cyclopropane	3	6	0	3	12
Local	3	5	3	1	12
Pentothal Sodium	0	0	1	0	1
TOTAL	59	33	12	6	110
	6%	3.4%	1.2%	.6%	11.5%

Actual Number of Patients Who Had Supplementary Anesthetic—94, or 9.8 per cent.

newer drugs such as pontocaine and nupercaine have considerably prolonged the time of the anesthesia and have obtained their popularity primarily on this basis, but they are unquestionably more toxic than procaine. Lundy believes that the use of metycaine constitutes a definite advance in this direction, in that it produces a definitely longer anesthesia without being any more toxic than the procaine.

The anesthesia was not satisfactory in 33 cases (3.4 per cent), which constitutes a very fair average and was, of course, a very definite indication for supplementary anesthetics. Combined anesthesia was deemed wise or necessary for 12 patients who were too unstable nervously to have spinal anesthesia alone. The planned combination of spinal with other anesthetics was used on only six occasions, and these were all in recent cases, as it has been within the last two years only that the value of this very satisfactory procedure has been fully realized. Lundy reports that at the Mayo Clinic in 1940 spinal anesthesia was intentionally combined with other types in 28.9 per cent of the total cases where spinal anesthesia was given. The use of this planned combination will undoubtedly increase.

The large majority of operations done under spinal anesthesia lasted from thirty to ninety minutes. (Table 9.) This would normally include the major operations done under any type of anesthesia, but with the use of novocain the time limit becomes impor-

TABLE 9—*Duration of Operation.*

	29 Min.	30-59 Min.	60-90 Min.	Over 90 Min.	Not Recorded	Total
Spinal Only	95	412	310	37	11	865
Spinal and Supplementary	2	6	26	59	1	94
						959

tant, and longer operations practically all required supplementary anesthetics. Of the 96 operations lasting over ninety minutes, 59 required this supplementary aid. Of 418 operations ending within the thirty to sixty minute period only 6 required supplement. Again the use of the newer, more toxic drugs would have extended this field, but it is questionable if its use would not have increased the risk more than the use of the less toxic supplementary anesthetics which were employed.

The correlation of the blood pressure findings with the amount of drug used always has been a rather difficult procedure. (Table

TABLE 10.—*Blood Pressure During Operation.*

Drug	9 mm. Hg.	10-19 mm. Hg.	20-29 mm. Hg.	30-39 mm. Hg.	40-49 mm. Hg.	50 Plus	Total
75 mg.	17	7	4	2	2	2	34
	50.0%	20.6%	11.7%	5.8%	5.8%	5.8%	100%
75-124 mg.	34	49	41	34	22	53	233
	14.6%	21.0%	17.2%	14.6%	9.6%	22.7%	100%
125 mg. plus	3	2	5	4	1	7	22
	13.6%	9.0%	22.7%	18.1%	4.5%	31.8%	100%
TOTAL	54	58	50	40	25	62	289
	18.6%	20.0%	12.6%	13.8%	8.8%	21.4%	100%

10.) In this series it was carried out somewhat approximately in 289 cases. It was found, as would be expected, that the smaller the dosage the greater the percentage of cases coming in the group of small degree of fall. For example, 50 per cent of the patients receiving less than 75 mg. showed a fall of less than 10 mm. Hg., and only 5.8 per cent showed a fall of 50 mm. Hg. On the

other hand, of those cases receiving 125 mg. or more, 13 per cent showed a fall of less than 10 mm. Hg., and 31.8 per cent showed a fall of 50 or more mm. Hg. In general it was found that if the blood pressure fell as much as thirty points it was very likely to continue to fall to 50 mm. Hg. or more. This was particularly true where the medium and large doses were used.

The use of stimulants in conjunction with spinal anesthesia has been the subject of much research and discussion for many years; so much so, that the subject will be only briefly referred to here. The effect of stimulants was noted in 329 of these cases. The results as given were determined chiefly by the response of the blood pressure. (Table 11.) For most of this time ephedrine and caffeine were the chief drugs given, usually singly, but often in combination. Ephedrine to be properly effective should be given before the anesthetic, as its action is rather slow and prolonged. The caffeine is much quicker in action, but its effects are definitely inferior. The results with these two drugs as noted, however, have been reasonably good. In 1938 the use of neosynephrin was begun, and this has largely supplanted the other drugs, as it has proved to give far superior results. It was employed in 97 cases with what was termed good results in 90, and fair response in the remaining 7. None of these cases showed what might be termed a poor response. This drug was given subcutaneously when the patient started to show beginning fall in blood pressure and then usually in small doses varying from 2.5 to 5 mg., which doses were repeated as necessary. In no case was more than 10 mg. given. The effect was apparent in from three to five minutes, which was adequate time to avoid serious complications if the patient was carefully watched. The chief advantages of this drug are that it slows the pulse; it increases pulse volume; it does not produce nausea or vomiting; and quite importantly, it does not cause stimulation of the central nervous system, as does epinephrine. Accessory stimulating measures such as intravenous fluids, blood transfusions, metrazol, and similar drugs have been used on occasion. The one other important stimulating measure which is not shown in this group of statistics but which is none the less very necessary and effective is the use of oxygen. This should be employed not only in cases of extremis but almost routinely where there is a marked fall in blood pressure accompanied by nervousness, nausea, and vomiting. Some anesthetists believe that the blood pressure can be maintained in practically all cases by this measure alone, and that the use of almost any type of drug is contraindicated. It is probably that the combination of both oxygen and stimulant drugs may at times be necessary.

TABLE 11.—*Stimulants**.

Results	Good	Fair	Poor	Total
Ephedrine	110	26	7	143
Caffeine	17	8	4	29
Neosynephrin	90	7	0	97
Others—Intravenous Transfusions, Metrazol	43	10	7	60
				329

*Response determined by blood pressure. Many had both Ephedrine and Caffeine. Neosynephrin was given alone.

TABLE 12.—*Side Effects.*

	Number	Percentage
Sweating	60	6.2
Nausea	88	9.1
Nausea and Vomiting	63	6.5
Sweating and Vomiting	25	2.6
Sweating, Nausea, and Vomiting	19	2.0
None	233	23.8 } 72.6%
Not Recorded	469	48.8 }
Death on Table	2	0.2
	959	

None—No side effects recorded. Not recorded—Presumably no side effects.

The side effects of nausea, sweating, and vomiting are practically always associated with fall in blood pressure and are chiefly to be combated by maintaining this at or as near the normal level as possible. (Table 12.) These effects, either singly or in combination, were present in about 27 per cent of these cases. Doyle and Sexton each reported lower incidence of these symptoms, their figures being 10 per cent and 20 per cent, respectively.

The study of postoperative complications associated with spinal anesthesia reveals most of those found in association with the use of any other type of anesthesia. The deaths on the operating table will be considered under the study of the deaths. The total number of postoperative complications was 73, or 7.6 per cent. By far the greatest number of these were respiratory tract complications, constituting 19 in all. Eight of these were pneumonia, eight lung emboli, and

TABLE 13.—*Postoperative Complications.*

1.	Death on Table		2
2.	Respiratory Tract		19
	A. Pneumonia	8	
	B. Embolus	8	
	C. Mild Infection	3	
3.	Peritonitis		5
4.	Ileus or Obstruction		2
5.	Toxemia or Uremia		7
6.	Cardiac Decompensation		7
7.	Cerebral Embolus		2
8.	Shock		3
9.	Headache		6
10.	Hiccough		13
11.	Psychosis		3
12.	Phlebitis		3
	TOTAL		73—7.6%

three mild infections. The pneumonia was fatal in 6 of the eight cases in which it occurred. The next most frequent complication, which was somewhat unusual, was the appearance of hiccough. This occurred most often in the elderly patients having transurethral resections, who constituted a large proportion of these cases, and here the complication was considered as probably due

TABLE 14.—*Deaths in Spinal Anesthetic Cases.*

Time		Age	
On Table	2	Less than 2 years	1
Less than 48 hours	8	20-29	0
Over 48 hours	24	30-39	1
	—	40-49	2
TOTAL	34	50-59	8
		60-69	15
		70-79	6
		Over 80 Years	1
		TOTAL	34

more to the primary pathological condition than to the anesthetic. The other complications in order of their frequency were toxemia or uremia, cardiac decompensation, headache, peritonitis, psychosis, phlebitis, shock, ileus or obstruction, and cerebral embolus. The number of psychoses appears rather high for such a small group; but here again the high incidence of elderly prostatic patients accounts for the unusual number, the complication occurring three times in such patients and all being temporary psychoses which cleared up before the patient left the hospital. The fourth case was a true manic depressive psychosis in a man of 40, whose symptoms did not begin until after he left the hospital. It was not felt that the

TABLE 15.—*Diagnoses in Cases in Which Death Occurred Where Spinal Anesthetic Was Used.*

Hypertrophied Prostate	7
Appendicitis	5
Carcinoma of Ovary	1
Carcinoma of Colon	9
Abdominal Carcinoma	2
Acute Cholecystitis	2
Fractured Femur	1
Malignant Prostate	1
Renal Tumor	1
Ventral Hernia	2
Volvulus with Obstruction	1
Ureteral Calculus	1
Diabetic Gangrene	1
TOTAL	34

anesthetic could have been a primary etiological factor in any of these cases.

Thirty-four of these postoperative complications were of such severity that they resulted in postoperative deaths. Two of these occurred while the patients were on the operating table, eight within forty-eight hours after operation, and twenty-four forty-eight hours or more postoperatively. (Table 14.) Most of these deaths occurred in the sixth and seventh decades, although one occurred in a male of 18, with peritonitis from a ruptured appendix. The diagnoses, operations performed, and the immediate causes of death in all of these cases are listed in detail in the accompanying tables. (Tables 15, 16, 17.) The chief interest in these data centers on the immediate cause of death where the question of influence of the anesthetic comes under consideration. Two fatalities occurred on the operating table and

TABLE 16.—*Operations in Cases in Which Death Occurred Where Spinal Anesthetic Was Used.*

Suprapubic Cystotomy	2
Appendectomy or Drainage	5
Oophorectomy	1
Resection of Bowel	8
Enterostomy	2
Cholecystectomy	2
*Proposed Reduction of Fractured Femur	1
Transurethral Resection	6
*Nephrectomy	1
Herniorrhaphy	2
Intestinal Anastomosis	1
Suprapubic Prostatectomy	1
Amputation of Leg	1
Abdominal Exploration (Carcinoma)	1
TOTAL	34

*Patients died on the table.

therefore might very properly be termed anesthetic deaths. The history of these cases is appended, but in fairness to the anesthetic the possibility of other factors being involved should be noted. (Case 1 and Case 2.) Both of these patients were elderly and both had definite vascular damage, one a marked myocardial weakness with previous cardiac attacks and the other chronic nephritis with hypertension. The one patient who died from postoperative shock within forty-eight hours may also probably be considered as one in whom the anesthetic was a definite factor in

TABLE 17.—*Immediate Causes of Death in Cases Where Spinal Anesthetic Was Used.*

Pneumonia	6
Peritonitis	5
Carcinomatosis	4
Toxemia	5
Anesthetic	2
Pulmonary Embolus	5
Cardiac Decompensation	4
Cerebral Embolus	2
Shock (48°)	1
TOTAL	34

the outcome. This was a woman of 62, who had excision of the colon for carcinoma and who suffered shock on the table, from which she never rallied. Of the 2 patients who died from cerebral emboli, both were elderly, being 73 and 72, and the latter died suddenly on the eleventh postoperative day. The other, a man of 73, developed sudden shock during the closure of a drained appendectomy wound and died eighteen hours later.

Of the patients who had pulmonary emboli, all occurred four or more days after operation, and the anesthetic could probably have

had very little bearing on their condition. Two of the four cardiac failures occurred on the fourth and twentieth postoperative days. Of the remaining 2, 1 died seven hours and the other twenty-four hours after operation. Both of these patients were men past 75 years of age, who had undergone transurethral prostatic resection. Spinal anesthesia may have been a factor in both of these deaths. Thus, there are 6 cases in which the spinal anesthetic may have been a deciding factor in the fatal outcome, but in practically all of these cases there were the mitigating factors of age or poor general condition which would have to be taken into account before placing the entire responsibility for the death directly upon the anesthetic as such.

Finally there should be recorded in connection with this series one more fatality, the brief history of which is appended in Case 3 reported here. If the fatal accident there recorded had occurred one minute later, this would necessarily need to have been reported as a typical case of death from spinal anesthetic. That such incidents of sudden death can occur in the operating room as well as in the home or elsewhere in the hospital whenever people are subjected to unusual strain should always be considered in evaluating an anesthetic or operative death.

CASE REPORTS

Case 1.—M. A., a woman, age 77, was admitted February 10, 1933. Twenty-four hours before admission the patient fell, striking on and fracturing the right hip. Upon admission the blood pressure was 142/82. X-ray examination showed intertrochanteric fracture of the right femur with displacement of the head and neck of the femur at 90 degree angle with eversion. The patient gave a history of several probable heart attacks. Electrocardiogram showed grave myocardial damage. The blood count, blood sugar content and urinalysis were normal.

The diagnoses were: fracture of the right femur, and coronary sclerosis with myocardial damage.

The patient was given preliminary medication of ⅛ gr. morphine and 1/150 gr. atropine, and arranged for reduction of the fracture and application of a plaster spica under spinal anesthesia on February 11, 1933.

Spinal anesthesia, 100 mg. of novocain, was given in the second lumbar interspace at 2:20 p. m. In a very few minutes, respiration became very irregular and difficult, and the patient died at 2:40 p. m., twenty minutes after injection of the spinal anesthetic before any attempt at reduction of the fracture or manipulation had been done.

Case 2.—T. G. W., a man, age 56, first entered the hospital December 18, 1933. He complained primarily of gastric discomfort of thirty years duration, with postprandial pain. He also had had constant painless hematuria of ten days duration. The blood pressure was 206/90. The Wassermann test was negative, and a blood count was normal. Cystoscopy showed a bloody jet from the left ureter. X-ray examination exhibited gastric stasis. A pyelogram was essentially negative.

The diagnoses were probable duodenal ulcer with statis; left hematuria, tumor and hypertension.

The patient was placed on an ulcer regime and advised to have the pyelogram rechecked.

Re-entry was on February 19, 1934. At this time x-ray study of the stomach was negative. A retrograde pyelogram showed pelvic changes suggestive of a tumor. Exploration of the left kidney was advised.

The patient re-entered the hospital on February 26, 1934. Spinal anesthesia was given, using ⅛ gr. morphine and 1/150 gr. atropine as preliminary medication. A left loin incision was made, and on exploration the left kidney was found to be about 50 per cent enlarged with a tumor in the midportion of the kidney about 5 cm. in diameter. The kidney was dissected free, and as a clamp was applied to the pedicle the patient's respiration and pulse stopped suddenly. Artificial respiration was given for thirty-five minutes, but there was no response. The kidney was removed, and the pathological report showed multiple multilocular retention cysts of the upper pole with an associated diffuse chronic nephritis.

Case 3.—E. B. S., a man, age 64, was admitted on August 5, 1935. The patient gave a history of a right ureteral calculus, passed two years previously. Eight days before admission he began to have frequency, dysuria, and difficulty in urination, which had gradually increased.

The blood pressure was 118/72. The heart was not enlarged, rhythm was regular, and there were no murmurs. Lung examination was negative. The prostate showed about grade 2 hypertrophy, and genito-urinary x-ray examination was negative except for the presence of stones outside the kidney area, which were regarded as gallstones. The blood Wassermann test was negative, the blood count normal, and the blood urea 20 mg. per cent. Urinalysis showed grade 3 pus, and culture from cystoscopy was negative. A phenolsulfonphthalein test exhibited 55 per cent total excretion.

Bilateral vasectomy was done, and an indwelling catheter was placed three days after admission, with no complications. The patient had some abdominal discomfort consisting chiefly of distention and gas during the week following the vasectomy. With application of heat and the use of enemas this subsided, and the patient was deemed in satisfactory condition for operation. Eleven days after admission the patient was arranged for transurethral resection. He stated that morning that he felt in excellent condition. Preliminary medication consisted of a number 2 tablet of hyoscine, morphine and cactoid.

The patient was taken to the operating room, transferred from the stretcher to the operating table, and, in the sitting position, prepared for the spinal anesthetic. After the proper intervertebral interspace had been located but before injection of the local anesthetic in the skin, the patient leaned forward and apparently fainted. He was placed flat, and immediately it was seen that respiration was rather poor, pulse very weak, and the patient became cyanotic. He was immediately placed with head down, 7½ gr. caffeine was given, and artificial respiration was started. Eight minims of adrenalin was given intravenously in the right arm. By this time the patient's pulse could not be felt, and the pupils were dilated. Artificial respiration was carried on for twenty or twenty-five minutes. The sphincter was dilated. Adrenalin 0.5 cc. and ether 2 cc., were injected into the heart without response.

This patient had had a No. 2 hyoscine, morphine, cactoid tablet as preliminary hypodermic, and no other medication or manipulation other than the transferring from the stretcher to the operating table. He evidently died a cardiac death, probably due to acute coronary occlusion.

THE PROBLEMS PERTAINING TO THE SOCIALIZATION OF MEDICINE

ALVIS E. GREER, M. D., F. C. C. P., F. A. C. P.
HOUSTON, TEXAS

I shall take the liberty of changing the title of the subject assigned to me for discussion today, "The Campaign Against Socialization of Medicine" to "The Problems Pertaining to the Socialization of Medicine." The reason for doing this is because there seems to be a prevalent idea among the laity that physicians are on trial, that we, as doctors, are fighting for some material advantage for ourselves, that we are now going to be chastised for having for many generations held the firm conviction we are members of a learned profession, not primarily interested in trade with its attendant implications.

For a long time I cherished the idea, as did many of my fellow practitioners, that this talk about regimentation of the medical profession was all too fanciful and remote. I had the impression my friends were overly concerned; that there was a faint possibility of such a disaster falling upon the people, but there was no need to worry. There is a little girl I know, who rather aptly expressed my former sentiments when she met a small boy crying as he walked along the street. She asked, "What are you crying for, Jimmie?" After Jimmie replied, "I'm cryin' cause Maw has wented to Heaven," she said, "That's silly. Maybe she haint."

We have watched the growing tendency in the United States during the past few years toward the implantation of federal centralization of authority, until now one would be foolhardy, indeed, who failed to sense the closing tentacles of centralized political power upon the inalienable free rights of men generally, and physicians in particular. I believe in the rights of men to choose their religion, the persons they want to vote for, their homes, schools, trades or professions, their lawyers, their hospitals and their physicians. The state has no right to usurp any of these individual prerogatives from its citizens. The state should be the community's servant, not its master.

There is nothing new about the ideology of the Wagner-Murray-Dingell bill, which was introduced in the United States Senate and House June 3, 1943. The medical profession has always voluntarily and freely cared for the indigent poor without thought of financial recompense. Workers in the lower income groups have been given minimum charges, or as a rule, none at all. I can look back over the years past and recall innumerable indigent patients, who abundantly, and sometimes in extravagant measure, repaid me solely and sufficiently with their friendship and loyalty for my poor efforts to give them individual, personal friendly guidance.

American medicine during the last quarter of a century has improved steadily through the years until now we can sincerely claim the American medical profession is giving our people the best scientific, and most unselfish, treatment in the world. It is not immodest to say we stand at the forefront of medical science and education. If the practice of medicine were turned into civil service to the state, the more intelligent and industrious young men of each generation would avoid its restrictions for free thinking and enterprise. The very essence of the practice of medicine demands independent and virile enthusiasts, who will brave its hardships in their desire to advance in their knowledge and power to prevent and cure disease. The great discoveries of medical science have been achieved by men, unrestricted in their thinking and planning, and unmolested by bureauracy. Man is essentially individualistic, and this is especially true when he is sick. In my opinion the average patient will insist upon individual care from his physician, and will rue the day when his doctor becomes a state official, and he, himself, assumes the passive role of a state charge, in whole or in part.

The salutary effect of medical foresightedness and inventive genius in the United States is well illustrated by the wonderful results we have attained in our armed forces at home and abroad. The mortality from pneumonia among thousands of affected soldiers has been 1 per cent, from meningitis 5 per cent, whereas in World War I, the mortality was 30 per cent. Only 0.5 per cent of the soldiers wounded in the Guadalcanal-Solomons areas died of their wounds. Preventive measures to combat the spread of disease, malaria, dysentery, typhoid, typhus, and venereal diseases, write a bright chapter in the progress medical science has made during the past twenty-five years.

Truly, we wonder what all this clamor is about. Is it just one more wedge driven into the fabric of the freedom our forefathers desired when they left their fatherlands to obtain the right to live and raise their children in a world of opportunity and freedom from intolerance and bigotry? Are we to return to autocratic, centralized state control, and accept the mandates of one indi-

Address delivered before the International Medical Congress, Laredo, Texas, February 17, 1944.

vidual, whose czaristic powers can force us to relinquish the primary functions of a free people? This does not seem possible to me at this moment. An old adage suggests in a free country there is much clamor but little suffering. This may be true in our case, for there seems no sensible need for the overall regimentation stated so plainly in the Wagner bill. It is true there is some disparity in the distribution of medical services in this country, but it is less actual than is suggested by the proponents of the bill. There is also some unevenness in the continuous flow of services from many government agencies—even the mail service may be irregular and inadequate at times. Certainly preachers, teachers, the police, even bankers and grocers, do not fit mathematically in an even arithmetical proportion to their constituents. It seems to me that in the craniums of some of our electorate we may justly say that imagination gallops while judgment goes on foot. I would hesitate to state there seems something almost sinister in this attempt to harness upon the poor public this fabric of collectivism under the guise of a beneficent enterprise. No, I would not say quite that much. For, perhaps, the authors of this bill, that is, the named vocal advocates of the bill, doubtless fail to see they are dealing with Americans whose ideals are the fruits of living heretofore unmolested by ideas imported into this country by people who had been bred and reared in countries where the basic economy and social philosophy are diverse from our own.

The evolution of the Wagner-Murray-Dingell bill began following the National Health Conference which created so much discord in 1937, and also, the report of the National Resources Planning Board, which latter body finished their report nine months before the bill was introduced into the Senate and House in 1943. An editorial in *The Journal of the American Medical Association* in June, 1943, stated "inquiry of reliable sources in Washington indicates the probability that the actual designers and authors of the bill included I. S. Falk, director of the Bureau of Research and Statistics of the Social Security Board of the Federal Security Administration, Mr. Wilbur J. Cohen, technical adviser of the Social Security Board, and Senator Wagner's secretary, Mr. Philip Levy." A statement issued by William Green, president of the American Federation of Labor, says "the measure . . . is the first of a five-year study by experts on the staff of the American Federation of Labor." It further states in *The Journal's* editorial, "inquiry also reveals that, as far as can be determined, representatives of the medical profession, either within or without Government, were not consulted in the development of the medical provisions. Evidence of this failure to consult the medical profession appears in the language of the proposed bill, since it speaks twice of a 'spell of sickness.' It is to be remembered that this phraseology is a colloquialism and seldom used by anyone educated in medicine."

It is impossible in such a limited discourse as this one to fully cover the details of the Wagner bill. To the members of my audience who are desirous of reading an analysis, prepared by the Bureau of Legal Medicine and Legislation of the A. M. A., I direct them to the June 26, 1943, *Journal of the A. M. A.* where may be found all the essential intricacies and ramifications of Mr. Wagner's brainchild. The bill confers on the Surgeon General of the Public Health Service tremendous, personal powers; to quote the *A. M. A. Journal*, "Indeed, it is doubtful if even Nazidom confers on its 'gauletier' Conti the powers which this measure would confer on the Surgeon General of the U. S. Public Health Service."

The Wagner bill provides unemployment benefits up to $30.00 per week, old age benefits of $120.00 per month, employment offices, permanent disability payments, temporary disability for 6 months, and complete medical care (hospital, physicians, nurses, spectacles). It has been estimated the cost will be $12,000,000,000 (twelve billion); the administrative costs $600,000,000 (six hundred million) by the sole "dictator," the Surgeon General of the U. S. Public Health Service, who will spend more per year than the cost of all government expenses from 1924 to 1930 (before the Roosevelt Administration). The sources of this income would come from employees, 6 per cent of gross income, and from employers 6 per cent of gross incomes, whereas the government employee (a vote getter) would pay only 3.5 per cent of his gross income, and the self-employed person would be discriminated against and "punished" for his labors toward financial independence by paying 7 per cent of his gross income. The Washington *Star* and the Chicago *Daily News* stated editorially there would be, at the present era, a minimum deduction of 42 per cent and a maximum of 47 per cent from the workers' wages. This is made up by the sum of the 20 per cent withholding tax, 10 per cent war bonds, 12 per cent social security and 5 per cent victory tax—a total of 47 per cent, which certainly will shrivel the worker's pay check. Private insurance companies can and do car-

ry health insurance at a more reasonable rate, not hampered by political control. It is to be remembered that during the last depression the insurance companies were 99 per cent solvent, whereas thousands of cities and counties, and one state, defaulted in their payments, and the United States Government repudiated its promise to pay creditors in gold. The tremendous amount of money involved in the estimated cost for operation of the Wagner bill may be realized when it is called to attention that during 1941 in the United States, the total cost for automobiles, tobacco, liquor, confections, jewelry, cosmetics, chewing gum, flowers and advertising was $1,000,000,000 (one billion) less than for the estimated expenditures under the Wagner bill.

It is unwise to refer to the Wagner bill as the "American Beveridge Plan." In Great Britain, Beveridge frankly stated that it is designed to make the people have freedom from want. The two problems are vastly different; there is real want in Britain, here there is none. The plans are not motivated from the same fundamental need. Britain has had a system of health insurance, not perfect it is true, but still workable, providing for 20,000,000 (twenty million) people a general practitioner's service and appliances, limited to workers and to salaried workers receiving less than 420 pounds a year. They found the system in the main workable, although not wholly satisfactory. Their new plan makes health insurance compulsory for all classes. But, after all, we live in America—a land of promise and of the free—more or less, up to this writing.

It must be remembered that no social security program can work satisfactorily unless there is a relatively stable economy. When the government steps into control and enforcement the hope of free enterprise ends, and the financial status of a city, state or nation becomes tottery. It is only a prosperous people who can carry on a large program of social security. When the opportunities of an individual are so drastically curtailed that he cannot save for the progression of his business needs, he will become disheartened and his incentive to prosper will cease. When individual security, based on his own free efforts, is gone, he will give little thought to the needs of his poorer neighbor; he will no longer be socially conscious nor public-minded; the community spirit will pass away. There may follow a decline in living standards and increased unemployment, with serious social, political and economic unrest. This indicates we must have a sound economy of free enterprise before we can afford the luxury of social insurance. The last paragraph of the Beveridge Report stresses the necessity for a sound, productive economy when it says: "Freedom from want cannot be forced on a democracy or given to a democracy. It must be won by them." The timing for beginning our social service measures is important in relationship to our economy. The excessive financial burdens in the prosecution of this war, and in assuring a sound economic position following the war, however, commit us to a very heavy load. The financial structure of our nation will not stand further commitments now. If we attempt such vast obligations the standards of living will be decreased. If this continues we may lose our ability and desire to care for our unproductive citizens.

It is my opinion all of these problems can be satisfactorily worked out by all the component groups of our society, labor, agriculture, medicine, management, and other vital groups. They could work out, intelligently and with freedom from bias, the basic problems for laying a sound economy and plans for social security before the people for their decision. No minority group should impress its rules upon the majority, and usurp totalitarian powers with which to rule our destinies. I am convinced physicians seek a compromise between regimentation and independence, and desire the largest degree of freedom and independence within the framework erected by themselves and the state. It is fair and just that doctors should be counseled freely and should play a large part regarding the administration of medical service to the indigent and to the workers in the lower income groups. The National Resource Planning Board clearly states its position when it says, "Experience has shown that the provisions of economic security in the form of cost payments is not only greatly to be preferred by the recipients, and thus a factor contributing to the maintenance of self-respect, but is also often more economical to the community."

It is well to remember, in conclusion, that the Wagner bill shows little interest in the quality of the medical work under its provisions. Physicians have always placed the highest plane of medical service in the vanguard, and if the present system of individualism in the practice of medicine remains, we may rest assured American physicians and surgeons will always be among the leaders in the prevention and cure of disease, and answer adequately the call of our country, both in peace and in war.

3717 Main Street.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas: *Section on Surgery, Section on Radiology and Physiotherapy, Section on Obstetrics and Gynecology, Section on Clinical Pathology,* San Antonio, May 3-4; *House of Delegates,* Dallas, May 10-11. Dr. C. S. Venable, San Antonio, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, Chicago, June 12-16, 1944. Dr. James E. Paullin, Atlanta, Georgia, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. Harvey F. Garrison, Jackson, Mississippi, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum. Dr. W. H. Browning, Shreveport, La., President; Dr. Alan Cazort, 702 Donaghey Building, Little Rock, Arkansas, Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Major G. D. Carlson, M. C., U. S. Army, Fort Sam Houston, President; Dr. Herman Klapproth, Sherman, Secretary.

Texas Club of Internists, San Antonio, September, 1944. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, San Antonio, May 3, 1944. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association. Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio. President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Galveston, October. Dr. Q. B. Lee, Wichita Falls, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Titus Harris, Galveston, President; Miss Lucille Allen, Highland Park High School, Dallas, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society. Dr. F. T. McIntire, San Angelo, President; Dr. R. R. Lovelady, Santa Anna, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. Albert Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society. July, 1944. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers. Abilene, Secretary.

Fourteenth District Society. Dr. S. D. Whitten, Greenville, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

TEMPERATURE GRAPHS AND OVULATION

A record of body temperatures, taken rectally daily before rising under standard conditions, is an inexpensive and simple method which very often will indicate the date of ovulation and thus the time when conception is most likely to occur, Pendleton Tompkins, M. D., Philadelphia, declares in *The Journal of the American Medical Association* for March 11. He describes charts and accompanying instructions which can be given women so they can keep an accurate record of daily temperatures.

Dr. Tompkins' method is based on the findings of many investigators that a woman's temperature under normal conditions is lower during the first part of the menstrual month and that the transition from a low level to a higher one occurs about the time of ovulation.

PHYSIOLOGIC NONSENSE

"Since the demonstration of the value of the treatment of poliomyelitis described by Miss Elizabeth Kenny," *The Journal of the American Medical Association* for January 22 says, "studies have been made in an attempt to explain the physiologic and pathologic conditions associated with the observed effects. The adherents of the Kenny theory have asserted that the harm of infantile paralysis is due to 'spasm' of the affected muscles rather than to a flaccid paralysis. Qualified investigators have shown that this is not the case. As stated recently by Stanley Cobb, it is being demonstrated once more in the history of medicine that new and empirical methods of treatment backed by uncritical enthusiasm may produce many cures but much physiologic nonsense. The treatment may be good, but the ex post facto conclusions of the therapeutist are usually bad."

EXPECTATION OF LIFE

"The League of Nations Monthly Bulletin for December presents tabular data on the expectation of life at birth and at 1 year of age in over thirty countries," *The Journal of the American Medical Association* for March 18 says. "For all countries covered the expectation of life at birth and in the earlier years of life is greater than in previous periods; the improvement is less striking or absent in later stages of life. The United States ranks high in the list and is exceeded only slightly by the Netherlands, New Zealand, Australia and Sweden. Japan, Russia and India have the lowest expectation of life, according to the latest information available. In all countries females show a longer expectation of life than males."

SPLENECTOMY IN PREGNANCY

The successful surgical removal of the spleen of a woman eight months pregnant is reported in *The Journal of the American Medical Association* for March 18 by David Polowe, M. D., Paterson, N. J. The pregnancy was complicated by thrombocytopenic purpura hemorrhagica. In the case reported by Dr. Polowe, a large tumor was found in the spleen. The operation was performed on October 27 and on November 29 the patient was delivered normally of a normal female infant about two weeks prior to estimated term.

As Dr. Polowe points out, thrombocytopenic purpura hemorrhagica is a very serious complication of pregnancy, with fetal mortality rates running as high as 64 per cent and maternal mortality rates almost 100 per cent.

INADEQUATE DIETS AND NUTRITIONAL DEFICIENCIES IN UNITED STATES

The Committee on Diagnosis and Pathology of the Food and Nutrition Board of the National Research Council has reviewed material reported in widely scattered journals on the state of nutrition of the people of the United States. An appreciable percentage of diets fail to meet more than 50 per cent of the recommended daily allowances of the Food and Nutrition Board, but many more diets are deficient by less than 50 per cent, emphasizes *The Journal of the American Medical Association* for April 15. This widespread prevalence of more or less deficient diets is associated with a high incidence of deficiency states, largely mild in intensity and gradual in its course. The problem thus created is both preventive and corrective. For prevention, production of sufficient food must be maintained and better distribution is required; judicious enrichment of appropriate foods may be advisable, and dietary education should be intensified and extended. For correction there is need for skill in detecting deficiency conditions and improved procedure for the treatment of such conditions. There has been some exaggeration of the benefits of optimal nutrition and much exploitation of the vitamins. This has retarded the proper application of the science of nutrition. However, knowledge of the relation of nutrition to health is being rapidly uncovered. The evidence now available, incomplete though it may be, leads to but one conclusion: that "there is a real difference as measured in terms of growth development and general health record between optimum and just adequate nutrition; and that every practical effort should be made to apply this knowledge in the interest of human welfare."

POST-WAR HOSPITALIZATION NEEDS

The Board of Trustees of the Kellogg Foundation, meeting December 21, voted a grant of $35,000 for study by the Post-War Planning Committee of the American Hospital Association of the post-war hospitalization needs of America. The worth of this project had already been recognized by a grant of the same amount from the Commonwealth Fund, contingent upon securing the balance of the $100,000 two-year budget from other sources. The Board of Trustees of the American Hospital Association has voted $15,000 this period.

The research of this two-year program will seek to determine the adequacy of distribution of present hospital facilities and the best method of insuring adequate hospital care for all citizens. While existing data will be utilized to the fullest extent, conclusions on a nation-wide basis require surveys on a more detailed scale. Recommendations for post-war hospital needs must be considered in the light of racial and climatic differences, relative standards of living, and other varying factors which need analysis.

The American Hospital Association and the Trustees of the Kellogg Foundation are in accord as to the urgency of the need of this project; and at the earliest possible date the study commission will be formed and the program will be initiated. The present heavy utilization of hospitals has led many of the board of trustees of hospitals to plan an extension of hospital services in the immediate post-war future; and legislation directed to establish the method of payment for hospital service on a compulsory basis has been introduced in Congress. This general interest in the functions and facilities of hospitals indicates the necessity of a comprehensive study which will make available expert consultation and statistics related to the individual hospital, the community, and the nation.

STANDARD VITAMIN MIXTURE AVAILABLE

For those who desire effective vitamin mixtures not disguised by a multiplicity of nonrevealing and frequently suggestive names, two mixtures have been added to the United States Pharmacopeia, *The Journal of the American Medical Association* for April 1 reports.

"The value of vitamin mixtures in multiple vitamin deficiencies," *The Journal* says, "is well established. Numerous communications have provided much information on the administration of these mixtures; the Council on Pharmacy and Chemistry has outlined the type of mixtures that will be found acceptable for inclusion in New and Nonofficial Remedies. Two such vitamin mixtures, Hexavitamin and Triasyn B in capsules and tablets, are described in the first bound supplement to U. S. P. XII. . . ."

Hexavitamin, *The Journal* explains, contains vitamin A from natural (animal) sources, vitamin D, ascorbic acid, thiamine hydrochloride, riboflavin and nicotinamide. Triasyn B consists of thiamine hydrochloride, riboflavin and nicotinamide. Pointing out that these are important additions to U. S. P. XII, *The Journal* says that "The next step will be for the physician to prescribe such compounds for his patients so that they may be obtained from the pharmacist."

SILICOSIS CAUSED BY WHEAT DUST

A case of silicosis caused by wheat dust is reported by Thomas F. Heatley, M. D.; Dalton Kahn, M. D., and C. R. Rex, M. D., Toledo, Ohio, in *The Journal of the American Medical Association* for April 1. Silicosis is a disease of the lungs caused by fine particles of silica. It is generally found among workers in mines and tunnels, stone cutters, especially granite workers, and sand blasters. Wheat dust has been rarely reported as a cause of the disease.

The three Toledo physicians say that a man, aged 55, came to them March 4, 1941, with a complaint of severe difficulty in breathing on exertion, a dry cough and pain in the chest. Up until 1929, when he took a job with a railroad unloading cars of wheat and storing the wheat in elevators, he had never lost time from illness or sought medical advice. Part of his work was in a tunnel where a traveling belt carried the wheat to an elevator and dumped it there. In 1937 he was obliged to quit because of progressive shortness of breath. He had no history of pneumonia or tuberculosis nor was there any demonstrable evidence of either disease when the three physicians examined him. It was found that he had advanced silicosis. These findings were significant in view of the fact that it is estimated that about 75 per cent of those who develop silicosis die of tuberculosis. Examination of the dust in the tunnel revealed that the silica content was 9.96 per cent and in that in the car 19.96 per cent.

LEUKEMIA INCIDENCE AMONG DOCTORS

Leukemia may occur in workers with radiation from x-ray or radium under conditions like those in which cancer of the skin due to radiation can arise, *The Journal of the American Medical Association* for April 15 points out. Exposure to x-rays under experimental conditions favors the development of leukemia in animals. Since high energy radiations may play a part in human leukemia, workers in the National Cancer Institute have compared the incidence of leukemia in physicians and in the general population on the basis of the death lists of physicians in *The Journal*, the mortality reports of the United States Bureau of the Census and an unpublished compilation of the United States Public Health Service. The ratio of deaths from leukemia to deaths from cancer, the ratio of deaths from

leukemia to total death rates, and death rates from leukemia were studied with the result that leukemia "was recognized approximately 1.7 times more frequently among physicians than among white males in the general population." The result is in accord with the increase in the incidence of leukemia in animals exposed to x-rays. Whatever the full meaning of the data at hand may be, the hazards of radiation require the strict maintenance of complete protection at all times.

CRITICAL STUDY OF VALUE OF COLD VACCINES

A study of cold vaccines and the incidence of the common cold among men and women employed by an industry in five geographic locations leads Lemuel C. McGee, M. D., Wilmington, Del.; J. E. Andes, M. D., Morgantown, W. Va.; C. A. Plume, M. D., Succasunna, N. J., and S. H. Hinton, M. D., Parlin, N. J., to report in *The Journal of the American Medical Association* for February 26 that "No clearly evident protection against the cold and related acute respiratory infections can be demonstrated in the results of this clinical trial at mass immunization. The indiscriminate use of cold vaccine now available is not the answer to the problem of industrial absenteeism due to acute respiratory infections."

Three vaccines administered by mouth and two by injection either into a vein or beneath the skin, which are currently offered as prophylaxis against the common cold were given clinical trials in a group of industrial and office workers during the October to April season of 1941-42 and 1942-43. At the same time some employees in the groups were given, either by mouth or injections, innocuous substances which they thought were cold vaccines. In many instances some of the latter employees received vaccine treatment one season. Another control group took no kind of treatment but reported colds during the periods of the study.

By assigning possible significance to slight differences of the arithmetical averages of the various groups, it was noted that the fewest colds developed among those receiving either a certain vaccine by injection or a placebo tablet by mouth. Groups receiving placebo treatment, either by mouth or injection, or no treatment at all lost fewest days from work because of colds. Groups receiving placebo injections or nothing at all had the mildest infections, measured by the length of absence per acute cold reported.

The authors point out that their findings confirm those reported from the University of Minnesota in 1938 and 1940 and of a similar study among military personnel.

GOVERNMENT HOSPITALS NEED OCCUPATIONAL THERAPISTS

While on battlefronts scattered throughout the world our armed forces are concentrating on winning the war, in Army and Veterans' hospitals here in the United States, trained occupational therapists are among those bending their efforts toward winning the peace.

These therapists are erasing the ravages of war by the systematic rehabilitation of injured bodies and minds. Some of the war-wounded are reconditioned for further service in the Army; others are fitted for useful civilian work in a normal environment.

As increasing numbers of injured soldiers return to the hospitals, more and more occupational therapists are needed to aid in their adjustment to normal life. In greatest demand are experienced graduates of accredited occupational therapy schools. Experience should be in hospitals acceptable to the American Medical Association. For some positions, however, college training in psychology and in arts and crafts or trades and industries, or experience as a junior aide in Veterans' hospitals, may be substituted for training in occupational therapy schools. Other positions will be filled by inexperienced graduates of occupational therapy schools.

The salary range of these positions is $1,970 to $2,433 a year, including overtime pay. Those appointed at $1,970 will be trainees for a period of 18 months; those appointed at $2,190 and $2,433 will administer occupational therapy under medical and general supervision, in Army and Veterans' hospitals.

There are no age limits and no written tests, but applicants must be physically capable of performing the duties involved. Persons now using their highest skills in war work should not apply. Federal appointments are made in accordance with War Manpower Commission policies and employment stabilization programs.

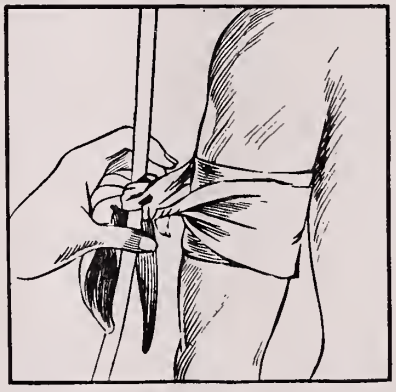
Further information on Occupational Therapy Aide positions and forms for applying can be obtained from first- and second-class post offices or from the United States Civil Service Commission, Washington 25, D. C.

LEAVE 'EM WHERE THEY LIE

When an artery is cut which pumps the blood from the heart, that is when you must put on a tourniquet.

What is a tourniquet?

It is something tied around the limb well (high) above the wound and tightened until the spurting stops.



Hemorrhage—Leave 'Em Where They Lie.

What can you use and how is it put on?

Use your necktie or belt or suspender or stocking.

Wrap it once around the limb, a hand breadth from any joint over some clothing (to keep from pinching the skin) and tie loosely. Then put a stick or pencil between the hand and leg or arm and twist the band until it tightens just enough to stop the spurting. Then every five minutes loosen it for fifteen seconds to let the circulation through and tighten again. Blood will clot (congeal) if given a chance.

(Prepared by the Fracture Committee, Texas State Medical Association; sponsored by Texas State Highway Department and Texas Public Safety Commission.)

RED CROSS RED BLOOD CELL TRANSFUSION SERVICE

A Red Cell Transfusion Service, conducted by the Blood Donor Service of the American Red Cross, is being extended from two investigative blood donor centers in Detroit to those in the country which are proximate to the plasma processing plants, it is re-

ported in *The Journal of the American Medical Association* for April 1. Major Earl S. Taylor, Medical Corps, Army of the United States, and William Thalhimer, M. D., Technical Director and Associate Technical Director, respectively, of the American Red Cross Blood Donor Service, and Warren B. Cooksey, M. D., Technical Supervisor, Red Cross Blood Donor Service, Detroit, announce the new service.

They explain that on the basis of investigative work with ten thousand red cell transfusions, it appears that this by-product of the plasma program for the armed services is suitable for transfusion use as a substitute, at least in part, for whole blood. The new service will be available first to Army and Navy hospitals and secondly to accredited civilian hospitals, without cost, for clinical investigation. In another report in the same issue of *The Journal* Dr. Cooksey and Captain William H. Horwitz, Medical Corps, A. U. S., present their findings from the ten thousand red cell transfusions. They found fewer reactions from red cell transfusions than from whole blood and striking clinical improvement in several anemic patients.

MESSAGE FROM THE SURGEONS GENERAL OF THE ARMY AND NAVY ON THE EMERGENCY MATERNITY AND INFANCY CARE PROGRAM FOR FAMILIES OF ENLISTED MEN.

The following is a letter addressed by the Surgeons General of the Army and Navy to the physicians of the United States, previously published in the March 25, 1944, number of *The Journal of the American Medical Association*, and republished here by request.

"On March 18, 1944, the Emergency Maternity and Infant Care program for the wives and infants of enlisted men in the four lowest pay grades of the armed forces of the United States will have completed its first year. Approximately a quarter of a million wives and infants will have been given care under the program. More than ninety per cent of this number are wives of enlisted men; nearly ten per cent are their newborn infants. Medical, nursing and hospital care is being made available in army and navy installations where it does not interfere with the care of the soldier and where it can be given without increasing existing facilities. Whatever other care is available in the place where the wife and infant are living is being given through the civilian authorities.

"Physicians the country over are contributing their medical skill to this wartime program generously and in return for moderate recompense. Hospitals the country over have opened their doors to these wives and their infants making available accommodations where their medical needs can be met adequately, though without luxury care. Nurses the country over are helping in the city and the rural homes and in the hospitals.

"All this is being carried out voluntarily by those who are participating in the program. All this is being done in spite of the great shortage of physicians and nurses serving the civilian population—a shortage caused by the entry into the armed forces of thousands of our physicians and nurses.

"This program of maternity and infant care for wives and infants of enlisted men is made possible by grants from the Federal Government through the Children's Bureau of the Department of Labor and the State health agencies, for the purpose of relieving anxiety among the enlisted men as to how the costs of maternity care for their wives, or the costs of medical care for their infants, will be met in their absence from home while in the armed forces—when, for a great majority, their family income has been lowered materially. The program carried out by the State health agencies brings assurance to the enlisted men that their national and State governments are doing whatever is in their power to make care available to their wives and infants, that physicians throughout the country are helping.

"The morale in the armed forces is being raised and our fighting men go overseas with greater confidence in the security of their families because of this wartime program.

"We who are responsible for the health and medical care of the men in the armed forces are grateful to you—physicians, nurses, and hospitals—who are participating in this program of care for the wives and infants of these men. You are sharing with us our normal peacetime responsibility of caring for the families of our men, and so are making it possible for us to give our best efforts to the men themselves.

"Your contribution is an invaluable aid to us in the prosecution of the war, and we count on your carrying this program forward in the year to come with the same generous spirit you have shown in the past year."

"Ross T. McIntire
Vice Admiral, M. C., U. S. N.
The Surgeon General of the Navy.
"Norman T. Kirk
Major General, U. S. Army
The Surgeon General."

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during April:

Dr. D. K. Robison, Dumas—*Sclerosis, dissemination* (23 articles).

Dr. Heinrich Lamm, La Feria—*Femur, fractures* (12 articles).

Dr. Max R. Woodward, Sherman—*Scarlet Fever* (10 articles).

Southwestern Medical School, Dallas—(1 journal).

Dr. J. W. May, Edinburg—*Anesthesia, in gynecology and obstetrics* (13 articles).

Capt. David A. Nathan, Camp Maxey—*Nephritis, glomerular* (8 articles); *Emphysema, pulmonary* (10 articles).

Dr. J. J. Mulloy, Stephenville—*Vitreous Humor* (6 articles).

Dr. Charles H. Frank, Texarkana—(3 journals).

Major Richard J. Chodoff, Camp Maxey—*Electrolytes* (10 articles).

San Antonio Aviation Cadet Center, San Antonio—(3 journals).

Major Wm. H. Seale, Fort Clark—*Diendameba, fragilis* (4 articles).

Scott & White Clinic, Temple—*Fractures* (1 article); (5 journals).

Major S. H. Nickerson, Camp Maxey—*Jaundice in Arthritis* (7 articles).

Dr. J. H. Caton, Eastland—*Paralysis, bulbar* (10 articles).

Dr. J. A. Garcia, Corpus Christi—*Koplik Spots* (5 articles).

Major B. E. Park, Camp Maxey—*Neck, tumors* (15 articles).

Dr. F. T. McIntire, San Angelo—*Tuberculosis, therapy* (11 articles).

Major Frank Cohen, Camp Wolters — *Granulocytopenia* (4 articles); *Penicillin* (6 articles).

Major C. S. Hagerty, Amarillo—(1 journal).

Dr. Otto C. Egdorf, Wichita Falls—*Eye, pain* (4 articles).

Dr. C. D. Lawson, San Benito—*Amebiasis, appendical* (1 article).

Dr. G. S. Myers, Brownsville—(1 journal).

Lt. Richard G. Scobee, Randolph Field—*Penicillin* (13 articles).

Major Paul H. Lubé, Amarillo—(2 journals).

Dr. Ben F. Harrison, Dallas—(4 journals).

Dr. John L. Dean, Crockett—*Psoriasis, therapy* (17 articles).

Dr. L. E. Kelton, Corsicana—*Mayo Clinic, history* (4 articles).

Dr. Vernon A. Black, Wharton—(2 journals).

Dr. Rex E. Van Duzen, Dallas—*Urination, incontinence* (10 articles).

Major H. S. Renshaw, Temple—*Spine, abnormalities* (10 articles).

Miss Alice Daniel, Wichita Falls—(2 journals).

Dr. C. D. Strother, Sherman—*Radium* (5 articles).

Dr. O. R. Hand, Lubbock—*Backache* (6 articles).

Lt. Comdr. R. E. Ching, Corpus Christi—(3 journals).

Dr. S. F. Harrington, Dallas—*Endocrine Glands, diseases* (12 articles).

Dr. R. W. Manar, Wichita Falls—*Dermatitis* (3 articles).

Medical Library, Station Hospital, San Antonio—(1 journal).

Major Charles H. Brown, Camp Hood—*Electricity, injuries* (10 articles).

Dr. C. G. Stricklin, Clarendon—*Blood Transfusion, plasma and serum* (19 articles).

Dr. W. N. Powell, Temple—(1 journal).

Dr. G. E. Glover, Austwell—*Abdomen, tumors* (9 articles).

Dr. Edward White, Dallas—(2 journals).

ACCESSIONS

Philadelphia, W. B. Saunders Company — Hoffman: Female Endocrinology; Feinberg: Allergy in Practice.

St. Louis, C. V. Mosby Company — Herrmann: Synopsis of Diseases of the Heart and Arteries, ed. 3; Selling: Synopsis of Neuropsychiatry; Kuhn: Industrial Ophthalmology.

New York, The Commonwealth Fund—Southmayd and Smith: Small Community Hospitals.

New York, Philosophical Library—Seiffert: Virus Diseases in Man, Animal and Plant.

New York, Macmillan Company — Ministry of Health, Scotland: A National Health Service.

SUMMARY

REPRINTS RECEIVED, 610	LOCAL USERS, 47
JOURNALS RECEIVED, 180	BORROWERS BY MAIL, 42
ITEMS CONSULTED, 168	PACKAGES MAILED, 46
ITEMS TAKEN OUT, 234	ITEMS MAILED, 309

TOTAL ITEMS CONSULTED AND LOANED, 711.

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library. State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion pictures were loaned by the Motion Picture Lending Library of the State Medical Association during April:

Rotary Club, Mineral Wells—*Middletown Goes to War; Sand in the Gears.*

Nazarath Hospital Staff, Mineral Wells—*They Do Come Back; Cloud in the Sky.*

The Paris Training School for Nurses, Paris—*Let My People Live; Role of the Public Health Nurse in Tuberculosis; Diagnostic Procedures in Tuberculosis; Globulin Modified Antitoxins* (available for loan through courtesy of Lederle Laboratories, Inc.); *Immunization Against Infectious Diseases* (available for loan through courtesy of Lederle Laboratories, Inc.).

Dr. W. A. Newton, Beaumont — *Immunization Against Infectious Disease* (available for loan through courtesy of Lederle Laboratories, Inc.); *Pneumonia* (available for loan through courtesy of Lederle Laboratories, Inc.).

Falls County Woman's Auxiliary, Marlin—*Behind the Shadows; Plain Facts.*

Breckenridge High School, Breckenridge—*Health in a Victory; In Defense of a Nation; Plain Facts.*

Rotary Club, Lufkin—*Another to Conquer.*

Business and Professional Women's Club, Palestine—*Choose to Live.*

Harris School of Nursing, Fort Worth—*Malaria.*

NEWS

Positions of Physicians at State Eleemosynary Institutions Changed.—The State Board of Control recently announced the following changes in positions of physicians at state eleemosynary institutions: Dr. David Wade, formerly of the Galveston Psychopathic Hospital, was transferred to Rusk State Hospital on March 1. Dr. W. F. Bolding has been made assistant superintendent of Austin State Hospital. Dr. Ralph A. Cloud, formerly a member of the Austin State Hospital, assumed charge of the Austin State School, March 1.

State Board of Medical Examiners Examinations.—The Texas State Board of Medical Examiners met in Houston, March 19 to 21, and considered ninety-eight applicants for licenses to practice medicine in Texas. Most of the applicants were recent graduates of Texas medical colleges, but a few were licentiates in other states, who were desirous of securing Texas licenses. The latter group included a number of physicians now in the Army.—*Houston Chronicle.*

The Texas State Board of Medical Examiners will hold its next examination sessions at the University of Texas School of Medicine, Galveston, on June 26, 27 and 28.

Further information or application forms for the examinations should be secured from Dr. T. J. Crowe, Secretary, Texas Bank Building, Dallas 2, Texas.

Field Hospital Unit Returned to Texas Base.—One and one-half year after they had left Camp Bowie, the Fourteenth Field Hospital Unit is back in Camp Bowie, Brownwood, where they trained, being the first organization to return to its base, according to officers of the Unit, informs the Brownwood *Bulletin.* The Unit served as an advance evacuation outfit in the fight for Attu, having gone into Attu with the second wave of infantry to invade that island. The Unit was on a troop transport for thirty days before landing on the island, where winds reached 120 miles an hour, and snowdrifts against the sides of countless hills reached a depth of twenty-five feet. When the Unit first arrived, members lived in tents and it was not unusual for them to waken in the middle of the night with no shelter from the weather because of the wind.

A Harris County Maternity Health and Infant Mortality Committee was recently inaugurated by the Harris County Medical Society, informs the Houston *Press*. The purpose of the committee is to make close studies of all maternity deaths and report on them at monthly meetings, pointing out what possibly might have prevented them. The personnel of the committee is as follows: Dr. Robert A. Johnson, chairman; Drs. Herman Johnson, H. L. Kincaid, S. W. Thorn, J. H. Wootters, Ruth Hartgraves, Laura Bickel, Mylie Durham, James A. Greene, Herman Gardner, F. W. McIndoe, Goldie Ham, Frank J. Iiams, H. L. Alexander, A. P. Bloxsom, J. F. Faider, J. Z. Gaston, L. A. Crapitto and David Wachsman.

Dr. H. J. Stander, professor of obstetrics and gynecology, Cornell University, and chief obstetrician of the New York City Lying-in-Hospital, who was in Houston at the time of the committee's inauguration to review the 1943 report of St. Joseph's Maternity Hospital, asserted that since the formation of a similar committee in New York City five years ago, maternal mortality has been reduced from seven deaths in 1,000 live births to two deaths.

One Million Dollars Offered University Regents by the Sealy and Smith Foundation of Galveston, it was announced recently by the Austin *American*. The offer is for a new general hospital unit at Galveston, and is contingent upon the University's spending approximately another million dollars for a new hospital, which would furnish about 500 more beds than the 400 now available at John Sealy. The offer was made for the construction of a pavilion to be known as the R. Waverley Smith pavilion for the use of both pay and semi-pay patients. The proposed unit, for which the Foundation would also provide x-ray equipment and clinical laboratories, would be joined to the present outpatient clinic and children's hospital. Part of the new construction would occupy the site of the women's dormitory on the medical campus. The regents have agreed to provide a new building for women students. No mention was made of what would become of the old Sealy Hospital building, which, after a battering in 1943 by a tropical storm, was defined as "safe but not satisfactory."

The million dollar proposal to the board was transmitted in a letter from Dr. Edward Randall, Galveston, chairman of the board of the Sealy Smith Foundation. Dr. Chauncey D. Leake, dean of the School of Medicine, called the attention of the board to the extent of the Sealy family benefactions since 1890; the impressive figure is $3,483,000, and is exclusive of the new proposal.

The Austin *American* points out that if the regents accept the one million-dollar offer from the Galveston source, they could scarcely give encouragement to any movement to remove the school from Galveston, a matter which may receive consideration in a state-wide medical survey ordered last month by the board. The committee in charge of the survey expects to spend three or four months in its investigations and possibly will hold meetings in Dallas, Houston, and other major Texas cities to sample public opinion and may send to Texas doctors a questionnaire inviting suggestions for improving the medical school.

Measles on Rampage.—Acting city health officer of Dallas, Dr. J. M. Dowis, announced recently that measles is on one of its periodic rampages in that city, and that hundreds of new cases are developing every week. Dr. Dowis pointed out that measles usually appear in large epidemics every three years, and the 1944 experience is a natural sequence. He predicted the outbreak in Dallas this year would result in 10,000 cases, many of which would not be reported because they would occur in adults and preschool children. Cases of measles are quarantined as soon as diagnosed and patients must remain isolated ten days.—*Dallas News.*

Baylor University Confers Sixteen Medical Degrees.—At the completion of its forty-fourth session, Baylor University College of Medicine graduated its first class since its location in Houston in June, 1943. Degrees of Doctor of Medicine were conferred upon sixteen graduates, fifteen of whom were men, and one woman. Diplomas were presented by Pat Neff, president of the University. Eight of the graduates will receive commissions as first lieutenants in the medical corps of the Army of the United States, and five will be commissioned lieutenants (jg) in the medical corps of the United States Navy.

Dr. Marvin L. Graves of Houston delivered the commencement address.

The honorary degree of Doctor of Science was conferred on Dr. Graves at the exercises, and the honorary degree of Doctor of Law was conferred upon Dr. W. H. Moursund of Baylor University by the College. Dean Moursund came to Baylor University College of Medicine in 1911, and he has had the position of dean since 1920. He is given much of the credit for the A-1 standard which the University has held for many years.

Dr. Graves is professor of medicine emeritus from the University of Texas School of Medicine, and already holds the degrees of A. B., M. A., M. D., and LL. D.

Since the inauguration of Baylor University College of Medicine, it has conferred the degree of doctor of medicine on 1,671 persons. Baylor University was chartered by the Republic of Texas nearly one hundred years ago, in 1845. One year later it was re-chartered and placed under the control of the Baptist general convention of Texas. It was consolidated with the Waco University and located in Waco. In 1903, the board of trustees of Baylor University took over the school of medicine, which was organized in Dallas in 1900, and which had been known as the Medical Department of the University of Dallas.

Baylor University began its second session at Houston, March 27, with 193 students enrolled. Of this number, 84 are freshmen, with 37 in the Army Specialized Training Unit. There is a total of 84 Army and 73 Naval students now studying in Baylor, and only 36 are civilians.

The Texas Surgical Society held its spring semi-annual meeting at the Rice Hotel, Houston, April 3 and 4, with fifty-one members and eleven guests present. The following scientific program was carried out during the two days' meeting:

The Scalene Syndrome—Jack Furman, M. D., Fort Worth.
Surgical Treatment of Pilonidal Cysts—W. B. Thorning, Jr., M. D., Houston.
The Changing Picture of Empyema Thoracis Complicating Sulfonamide Treated Pneumonia—Lt. Commdr. Charles McLaughlin, U. S. Naval Hospital, Corpus Christi. (Read by Lt. Commdr. E. W. Coyle, in the enforced absence of Lt. Commdr. McLaughlin, because of naval orders.)
Colloid Cysts of the Third Ventricle—James Greenwood, M. D., Houston.
Surgical Procedures in Endometriosis—Frank Selecman, M. D., Dallas.
Surgical Management of Solitary Pulmonary Cysts—Major M. D. Tyson, Ashburn General Hospital, McKinney.
Injuries to the Colon from Compressed Air Inflation—R. J. White, M. D., Fort Worth.
Use and Abuse of Nasal Suction in Abdominal Surgery—G. D. Mahon, M. D., Dallas.
Plastic Surgery at the U. S. Naval Hospital, San Diego, California—Capt. H. L. D. Kirkham, M. C., U. S. N. R.
Congenital Hernia of the Diaphragm—H. W. Cochran, M. D., Dallas.
Causes and Treatment of Non-Union of Fractures—Major W. A. Bishop, William Beaumont General Hospital.
The Glomus Tumor with Report of Two Cases—R. W. Crosthwait, M. D., Waco.
A Technique Using a Buried Continuous Non-Absorbable Suture—Joe T. Gilbert, M. D., Austin.

Captain Kirkham, of Houston prior to his entry

into the armed services during the present war, and well known plastic surgeon, gave an interesting discussion of plastic surgery at the San Diego Naval Hospital, which receives patients from the West Coast and South Pacific area. Captain Kirkham paid tribute to the outstanding contribution being made to war-time plastic surgery by the motion picture industry. Two former M. G. M. and Warner Brothers makeup men head the "prosthetic" division which provides artificial features for temporary use and have an important part in the construction of new hairlines to replace those eradicated by burns and deep wounds. The prosthetics are principally ears and noses made of a new light substance which is non-irritating, and the finished products are foolproof in appearance, both in texture, color and flexibility. Men with missing features to be rebuilt through the lengthy process of skin grafting and surgery are given prosthetic substances shortly after their arrival for temporary use. The new features last about ten days, according to Captain Kirkham, but the men quickly learn to make and attach new ones. The prosthetic features are amazing morale builders. Captain Kirkham stated that many times he had seen a sailor with perhaps six months' period to go through in plastic surgery reconstruction, depart for a thirty-day leave with the prosthetic "makings" of a new nose in his pocket, and no thought whatsoever of the altered countenance which would otherwise cause untold misery. Amputation cases have been recently assigned to the plastic surgery department, and new hands and feet are fashioned which duplicate nature to the minutest detail possible. Celluloid nails, hair, veins, and even callouses are included, and a development has recently been improved which will provide movable fingers which grip as well as the originals.

Serving with Captain Kirkham at the San Diego Hospital are Capt. J. T. Mills, M. C., U. S. N. R., former plastic surgeon of Dallas before his entry into the Service, and Comdr. L. E. Potter, M. C., U. S. N. R., of Houston before the war.

The members of the Society were entertained with a cocktail party preceding dinner in the evening of April 3. On this occasion, Dr. Chauncey D. Leake, Dean of the University of Texas, School of Medicine, guest speaker, gave an address entitled "The Story of Anesthesia."

The Society will hold its next meeting in October at Galveston.

The American College of Surgeons' War Session held at the Gunter Hotel, San Antonio, March 31, was well attended by physicians, surgeons and hospital representatives, principally from Texas, but also from adjacent states.

Dr. Felix P. Miller, El Paso, Governor of the American College of Surgeons, presided at the morning sessions which opened at 8:30 a. m. with a showing of military motion pictures produced for the War Department. Speakers in the morning sessions included Major Clinton L. Compere, M. C., McCloskey General Hospital, Temple, and Commdr. Herman A. Gross, M. C., U. S. N. Hospital, New Orleans, who related experiences in theatres of war. Dr. Thomas B. McKneely, Surgeon, U. S. Public Health Service, also gave an address at the morning sessions, entitled, "Wartime Problems in Communicable Disease Control."

Hospital personnel held a separate conference from 9:30 to 11:30 a. m. with A. C. Seawell, administrator, City-County Hospital, Fort Worth, presiding. Hospital problems were discussed by Frank A. Thomson, Temple, administrator, Scott and White Hospital; Dr. E. W. Bertner, Houston, acting director, M. D. Anderson Hospital for Cancer Research; Mother M. Fidelia, San Antonio, Santa Rosa Hospital; Tol Terrell, Fort Worth, administrator, Harris Memorial Methodist Hospital; Dr. Hester B. Curtis, Kansas City, Missouri, Regional Medical Consultant, Children's Bureau, United States Department of Labor; and Dr. Malcolm T. MacEachern, Chicago, Associate Director, American College of Surgeons.

Dr. E. W. Bertner, Houston, presided at a luncheon meeting for all in attendance on the War Session. Dr. Chauncey D. Leake, dean of the University of Texas, School of Medicine, Galveston, discussed "Current Problems in Relation to the Accelerated Program for Pre-medical and Medical Education," and Dr. Sam E. Thompson, Kerrville, Chairman, Eighth Service Command, Procurement and Assignment Service, War Manpower Commission, discussed "Current Problems in Medical Manpower for the Armed Forces, Hospitals and the Civilian Population."

Dr. Walter G. Stuck, San Antonio, chairman of the Committee on Local Arrangements, presided at an afternoon session of the medical group. Speakers during this session included Col. Bradley L. Coley, M. C., U. S. Army, Surgical Consultant, Eighth Service Command; Lt. Col. Richard B. Grant, Jr., M. C., U. S. Army, Brooke General Hospital; Lt. Commdr. Charles W. McLaughlin, M. C., U. S. Navy, Corpus Christi; Dr. Quincy B. Lee, Wichita Falls; Dr. Frank B. Brewer, Legion; Dr. McKneely and Dr. MacEachern.

A round-table conference was held for hospital personnel in the afternoon on the relation of government agencies and voluntary organizations to hospitals in the solution of wartime problems. Robert Jolly, administrator of Memorial Hospital, Houston, presided. Participants in this program included Dr. R. B. Anderson, Fort Worth, Vice-Chairman, Procurement and Assignment Service for Physicians for Texas; Daisy Rea Moore, R. N., Houston, Chairman, Procurement and Assignment Service for Nurses; A. Louise Dietrich, El Paso, Secretary, Texas State Nursing Council for War Service; Mrs. Ernest L. Brown, San Antonio, Chairman, Volunteer Special Services, Bexar County Chapter, American Red Cross; Mr. Webb Roberts, Dallas, Regional Representative, Government Division, War Production Board; Josie M. Roberts, Houston, Superintendent, Methodist Hospital, and Trustee, American Hospital Association; Mr. Walter R. McBee, Dallas, Executive Director, Group Hospital Service; and Dr. McKneely, Dr. Curtis, and Dr. MacEachern.

The War Session was closed with a dinner-forum in the evening, with Dr. C. S. Venable, San Antonio, member of the Committee on Local Arrangements, acting as moderator. Speakers on all programs of the war session answered questions propounded by the audience. A very interesting well-illustrated discussion of a postwar educational program for surgeons was given by Dr. Malcolm T. MacEachern, Chicago, Associate Director of the College.

The Fourth War Loan, recently concluded, went well over the top as had the previous War Loans, and was marked by the largest advertising campaign in history over a similar period of time, according to figures released by the Treasury Department. Exclusive of radio figures, which are still in process of being compiled, it is estimated that the value of the advertising campaign in the five-week period was $11,806,222.11. This astounding campaign was accomplished without one cent of taxpayers' money being expended for paid advertising space, all of it having been donated by the various advertising mediums. The dollar value breakdown of advertising compiled by private outside agencies was as follows: daily newspapers, $6,085,005.51; weekly newspapers, $1,764,235.60; general magazines, $1,521,200.00; outdoor, $1,409,300.00; trade publications, $763,200.00; farm magazines, $323,280.00.

A total of 1,212 different magazines carried without charge the Treasury Department's official Fourth War Loan magazine advertisement, including 328

general magazines, 752 trade publications, and 132 farm magazines. Magazines also carried many hundreds of thousands of dollars' worth of additional advertising prepared and placed by leading national advertisers.

The Fifth Annual Report of the National Foundation for Infantile Paralysis, made public recently by the Foundation's president, Basil O'Connor, disclosed that despite the global war and the nation's third worst epidemic of poliomyelitis, which occurred last year, the fight against the disease was pressed harder in 1943 than ever before. The report shows that during the fiscal year ended September 30, 1943, the National Foundation made grants and appropriations totaling $1,278,836.04 in five main categories: virus research, after-effects research, education, medical publications, and epidemics and public health. Local chapters which provide care for poliomyelitis patients in their areas, receive half of the funds raised each January during the celebration of President Roosevelt's birthday. General administrative expenses of the National Foundation for the year totaled $84,970.53.

The report discloses that the National Foundation spent more than $500,000 in testing and evaluating the Kenny method and in training doctors, nurses and physical therapy technicians in that method. More than 900 doctors, nurses and physical therapy technicians have been instructed and trained in the Kenny method at the University of Minnesota, with finances provided by the National Foundation. Other centers opened by the Foundation for the teaching of the Kenny method are located in California, Illinois, Indiana, George, Pennsylvania and New York. Grants to these institutions for conducting special Kenny courses have totaled $140,000 to date.

A total of $54,000 has been expended for scholarships, wool for treatment, distribution of literature, and for exhibits and demonstrations of the Kenny method.

In addition to these items, which total $301,000, local chapters of the Foundation throughout the Nation have spent at least $200,000 in furnishing scholarships for doctors, nurses and physical therapy technicians at the teaching institutions, including travel allowances, tuition fees, living expenses and, in some cases, salaries.

Recently, the Foundation made a five-year grant for further evaluation and teaching of the Kenny method of $175,000 to the University of Minnesota for the study of physiological problems concerned with the mechanism of the disease process and methods of treatment.

The report shows that despite the efforts of scientists working night and day on research, "little is still known of the nature of the virus which produces the disease or its method of spread from patient to patient." . . . "The exact role of flies, mosquitoes, water or food in its transmission is still uncertain. There is no drug known which will prevent or cure. No method of immunization has been developed. No one knows the factors that determine whether a child will have a mild, undiagnosable case, or whether there will be paralysis, or death. These are problems that require research and the attention of the best intellects of our day."

Deceased Dallas Physician Honored.—The Pan-American Round Table No. 1, Dallas, of which Mrs. William B. Carrell, wife of the late Dr. William B. Carrell of Dallas, is director, recently sponsored the dedication of two pecan trees in the Latin-American quarter of Dallas, in memory of the late Dr. William B. Carrell, nationally known orthopedic surgeon. Mrs. T. B. Griffith, assistant director of the Pan-American Round-Table No. 1, presented the trees to Mayor Woodall Rodgers and the City of Dallas and to Mexican Consul Luis Perez-Abreu and the Latin Americans. Mrs. Griffith paid special tribute to the work of Dr. Carrell with crippled children. The trees were formally dedicated and blessed by Dean Gerald G. Moore of St. Matthew's Cathedral Episcopal Church.—*Dallas News.*

The Association for Research in Ophthalmology, Inc., will hold its fourteenth scientific meeting June 13, at the Hotel Sherman, Chicago.

The following scientific program has been arranged:

Choline Esters with Mydriatic and Cycloplegic Action—Kenneth C. Swan, M. D., and Norman G. White, M. S., University Hospital, Iowa City, Iowa.

The Dissociation of Form and Light Perception in Amblyopia Ex-Anopsia—Hermann M. Burian, M. D., and George Wald, Ph. D., Biological Laboratories of Harvard University.

A Quantitative Test for Measuring Degree of Red-Green Color Deficiency—Louis L. Sloan, Ph. D., AAF School of Aviation Medicine, Randolph Field, Texas.

A Study of the Pathogenicity of Diphtheroid Bacilli Isolated From the Human Conjunctivae—Charles Weiss, Ph. D., M. D., Isabella H. Perry, M. D., Marion C. Shevky, A. B., Mt. Zion Hospital, San Francisco, California.

Backflow Phenomena in Aqueous Veins of Normal and of Glaucomatous Eyes—K. W. Ascher, M. D., Department of Ophthalmology, College of Medicine, University of Cincinnati, Cincinnati, Ohio.

Effect of Chemotherapeutic Agents on Cell Division of the Intact and Regenerating Corneal Epithelium Following Burns and Abrasions in the Rat—George K. Smelser, M. D., and V. Ożanics, M. D., Columbia University College of Physicians and Surgeons, New York.

Evaluation of the Use of Penicillin in Military Ophthalmology—John G. Bellows, Major, M. C., Billings, General Hospital, Fort Benjamin Harrison, Indiana.

Dr. Frederick C. Cordes, San Francisco, California, is chairman, and Major Brittain F. Payne, M. C., AAF School of Aviation Medicine, Randolph Field, Texas, is secretary of the program. Dr. Conrad Berens, New York City, is acting secretary-treasurer of the Association.

PERSONALS

Dr. Gordillo Zuleta, the Director General of Health for Peru, will visit Texas on or about May 15 for the purpose of reviewing activities and procedures of the Texas State Department of Health, informs Dr. George W. Cox, State Health Officer. Dr. Gordillo is the ranking public health official in Peru, and his visit is looked forward to with pleasure by members of the State Health Department.

Dr. Mary Walton, past assistant surgeon of the U. S. Public Health Service, recently assumed the office of director of the Paris-Lamar County Health Unit, informs the Paris *News*. Dr. Walton succeeds Dr. Francis E. Dill. Dr. E. W. Prothro of the State Health Department, had been serving as acting director since Dr. Dill left. Dr. Walton, a native of Minneapolis, comes to Texas from Alabama where she spent the past three years in Public Health Service. She previously practiced medicine in New York City before going into the Public Health Service a little more than three years ago. She is a graduate of the University of Minnesota.

Dr. Will Miller of Corsicana, was recently appointed acting director of the Corsicana-Navarro County Health Unit to fill the vacancy created by the resignation of Dr. F. E. Sadler, states the Corsicana *Sun*. Dr. Miller has formerly acted in a similar capacity when a full-time director was unavailable. Dr. Sadler is returning to Sulphur, Oklahoma, as superintendent of the Oklahoma State Veterans' Hospital, a post he held for eleven years prior to becoming director of the Corsicana-Navarro County Health Unit.

Dr. Paul Burrow was recently appointed health officer of Killeen, succeeding Dr. Joe A. Fowler who resigned because of his health.—*Killeen Reporter.*

Dr. E. A. Ballard was recently appointed director of the Central Texas Health Unit, assuming office March 23. Dr. Ballard formerly practiced in Belton and has been serving as director of the Laredo-Webb County Health Unit.—*Belton Journal.*

Mrs. Lydia Tottenham, age 98, died February 28, 1944, in Brenham, Texas. Mrs. Tottenham was the widow of Dr. J. W. Tottenham, a pioneer physician of Washington and Austin counties, who died ten years ago, and the mother of *Dr. J. W. Tottenham*, Fort Worth, American Airlines surgeon.

SOCIETY NEWS

Dallas County Society

March 9, 1944

(Reported by W. W. Fowler, Secretary)

Symposium on Present Concept of "Precancerous Lesions":
Gastro-Intestinal Tract—George Underwood.
Skin—J. B. Howell.
Genital Tract—William F. Mengert.
Urinary Tract—Edward White.
Skeletal System—H. H. Beckering.
Breast—Earl Taylor.
Experimental and Pathological Evidence—Charles Ashworth.

Dallas County Medical Society met March 9, in the Medical Arts Auditorium, Dallas, with forty-three members present. David W. Carter, Jr., president, presided. The scientific program as given above was carried out. J. B. Howell exhibited many lantern slides on skin lesions of precancerous nature.

The symposium was discussed by Frank Selecman, A. J. Gill, and John L. Goforth.

President Carter announced the following public health committee: Harvey Black, chairman; O. T. Woods, M. O. Rouse, Davis Spangler and John L. Goforth.

March 23, 1944

Symposium on Thrombocytopenic Purpura:
Case Report—R. S. Rosenthal.
Clotting Mechanisms—Robert Lackey.
Medical Management—Paul J. Thomas.
Surgical Management—H. W. Cochran.

Dallas County Medical Society met March 23, in the Medical Arts Auditorium, Dallas, with forty-six members present. David W. Carter, Jr., president, presided. The scientific program as given above was carried out.

The symposium on thrombocytopenic purpura was discussed by J. V. Goode, A. W. Harris, R. M. Barton, George M. Jones and Tinsley Harrison.

Resolutions of sympathy were adopted on the deaths of Dr. Dan Murchison and Dr. W. B. Carrell, of Dallas.

James Martin Hartman, Ernest Ward and Elmer Malcolm Stokes were elected to membership on application.

William F. Mengert, chief of the obstetric service at Parkland Hospital, read the following communication which had been addressed to the Director, Division of Maternal and Child Health, Texas State Board of Health, with regard to the Children's Bureau program for maternal and infancy care in families of enlisted men, and which letter was signed by the superintendents and chiefs of obstetric services of St. Paul, Methodist, Parkland and Baylor Hospitals of Dallas:

"The Obstetricians and Hospitals of Dallas, represented by the undersigned, are in complete sympathy and accord with the idea of providing obstetric care for the wives of enlisted men who are otherwise unable to provide such care, and stand ready to do their patriotic duty to them and to our country. Furthermore, we believe that such wives should not become, or be made to feel that they have become, charity patients, and that any service to them should be on a private patient level.

"On the other hand, we are unwilling to subscribe to the Federal Government's plan known as "Emergency Maternity and Infant Care" because: (1) Our obstetricians do not wish to accept payment from Government for services rendered; (2) Many service men's wives do not need financial aid; (3) A real emergency does not seem to exist at present in Dallas.

"Recognizing, however, that in certain cases the service man is unabel to provide adequate care for his wife, and desiring to do everything within our power to relieve him of worry, both as a patriotic service to him and indirectly to our country by enabling him to serve more efficiently, we, therefore, propose in such cases that the obstetricians of Dallas will give prenatal care according to accepted standards, delivery and after-care without compensation either from Government or from the patient. Such service will be furnished either individually, or as a group effort, by properly qualified and designated Staff Obstetricians and no part of it will be delegated to any member of the several resident staffs.

"We feel that the problem concerning the Hospitals is an entirely different matter, since they must supply materials and food, in addition to service. Therefore, we feel that the individual Hospitals should be compensated for laboratory work and supplies at the minimum rates during the prenatal period, and at minimum rates for the hospitalization period. Since it is possible that an occasional pregnant dependent of a service man might find herself without funds or a method of reimbursing the hospital, it is understood that no patient will be refused hospitalization regardless of her financial status.

"The Hospitals and Obstetricians represented by the undersigned, are in agreement with the foregoing, and hope that it will be acceptable to you."

W. K. Strother moved that the Society go on record as endorsing the letter, which motion was seconded and carried.

O. T. Woods called attention of the Society to a resolution pertaining to the family planning clinic, presented at the October 28, 1943, meeting of the Society, by Asa E. Seeds. The resolution, at the meeting referred to, had been tabled. Dr. Woods moved that the motion be brought from the table, and the motion carried.

John G. Young then moved that the Society accept the report of the committee recommending endorsement of the family planning clinic under proper supervision and regulation. The motion was seconded by R. S. Rosenthal.

John R. Beall offered an amendment to the motion that before final action is taken, members of the society be notified. The motion of Dr. Beall was seconded by Dr. Potts, following which it failed of adoption.

The motion of John G. Young, that the Society endorse the family planning clinic in accordance with the recommendation of the committee which had investigated it, was then adopted by a vote of eighteen to fourteen.

Dawson-Lynn-Terry-Gaines-Yoakum Counties Society

March 8, 1944

(Reported by J. W. Sinclair, Secretary)

Fluid Balance—Captain Fitzsimmons, Hobbs Army Air Base.
The Use of Cotton as a Suture Material—A. S. Tomb.

Dawson-Lynn-Terry-Gaines-Yoakum Counties Medical Society met March 8, at the Wines Hotel, Brownfield, with ten members and five visitors present. After a dinner, which was also attended by wives of members present, the ladies withdrew for a separate meeting for the purpose of re-organizing the Woman's Auxiliary to the Society.

A business session was then held in which routine affairs were transacted.

A resolution of sympathy was adopted on the death of Dr. W. H. Dunn of Lamesa.

The scientific program as given above was then carried out.

The Society will hold its next meeting in Lamesa in June, 1944.

Gray-Wheeler Counties Society

March 16, 1944

(Reported by H. L. Wilder, Secretary)

Causes of Dyspnea that May Resemble Asthmatic Breathing—Ray M. Balyeat, Oklahoma City.
Bronchial Asthma—W. Purviance, Pampa.

Gray-Wheeler Counties Medical Society met March 16, at the Synder Hotel, Pampa, with thirteen members and visitors present. Following a Dutch lunch, the scientific program as given above was carried out. Dr. Balyeat illustrated his paper on causes of dyspnea that may resemble asthmatic breathing with some very interesting roentgenograms.

During a business session, it was voted to commend the editors of all the newspapers in Gray and Wheeler Counties for the aid and publicity they have given the public in opposing the Wagner-Murray-Dingell Bill in Congress.

The Society also voted unanimously to support Dr. A. O. Singleton of Galveston for the office of president-elect at the next meeting of the House of Delegates of the State Medical Association.

Gregg County Society

March 23, 1944

(Reported by E. W. Awalt, Secretary)

Gregg County Medical Society met March 23, at the Longview City Hall, with President H. H. Niehuss presiding.

A discussion was had regarding the Children's Bureau Obstetric and Pediatric Care program for families of enlisted men, and it was decided to reject the plan for the following reasons:

1. The two general hospitals here will not accept patients under the plan.
2. Neither the hospitals nor the physicians have as yet been reimbursed for services rendered under the plan.
3. The plan is not adaptable to many conditions that might arise during the ten months of pre- and post-natal care.
4. It is contrary to the principles of American Medicine in that it introduces a third party between the doctor and his patient.

It was also voted to donate $50 from the Society's funds to the Public Relations fund of the State Medical Association for the campaign against socialized medicine. It was announced that the Hurst Clinic had also donated $50 for this purpose.

The following officers were elected for 1944: V. R. Hurst, president; Ben Andres, vice-president; and L. N. Markham, secretary.

Hill County Society

March 10, 1944

Pernicious Anemia—O. B. Gober, Temple.
Acute Obstructions of the Colon—G. V. Brindley, Temple.

Hill County Medical Society met March 10, at Hillsboro, with twelve members and visitors present. The scientific program as given above was carried out. Dr. Gober and Dr. Brindley illustrated their papers with case histories.

Jefferson County Society

March 13, 1944

(Reported by L. L. Byrd, Jr., Secretary)

Urinary Calculi and a Consideration of the Use of Pyelography in Diagnosis—Benny J. Fett, Port Arthur.

Jefferson County Medical Society met March 13, at St. Mary's Hospital, Port Arthur, with I. T. Young, president, presiding.

Bennie J. Fett, in discussing his paper on urinary calculi with consideration of the use of pyelography in diagnosis, reviewed historical data and discussed the etiology, occurrence, symptoms and signs, diagnostic procedures, differential diagnosis, types of treatment and their indications, and factors in determining prognosis. The paper was discussed by H. E. Alexander, A. R. Autrey and M. F. Raine.

Harvey Taylor Best was accepted to membership by transfer from the Shreveport Medical Society of Louisiana.

A discussion was had regarding the operation of a clinic in Port Arthur. Taylor Walker gave a report of the committee dealing with an ethical matter, which report recommended that the data accumulated by the committee be turned over to the board of censors, and that the board of censors prefer charges in accordance with constitutional procedure.

Correspondence pertaining to another ethical matter was read and given consideration.

March 10, 1944

Recent Advances in Anesthesia—Mary Chiasson.

Jefferson County Medical Society met March 10, at St. Therese Hospital, Beaumont, with I. T. Young, president, presiding.

Mary Chiasson, in discussing recent advances in anesthesia, dealt with intravenous, inhalation and lumbar block anesthesia. Her paper was discussed by A. R. Autrey, Thomas M. Tyndall, L. L. Byrd, Jr., L. C. Powell and Irma M. McFadden.

A letter from Galveston County Medical Society was read, seeking endorsement of Dr. A. O. Singleton for the office of president-elect of the State Medical Association.

A. R. Autrey moved that the Society instruct its delegates to support the nomination of Dr. Singleton for this office at the next annual meeting.

L. C. Powell requested that the Society advise concerning any other instructions that might be given to the delegates. No other instructions were given.

A letter from the Tyrell Public Library regarding a series of films on "Why We Fight" was read.

Resolutions of sympathy were adopted on the death of Dr. J. B. Swonger.

Mr. Koenemann of the Medical and Dental Business Bureau, gave a report of the activities of the Bureau since it was started and presented a plan which he hoped will be useful in preventing the socialization of medicine. The plan provides for a budget payment for medical services.

Tom Green Eight County Society

March 6, 1944

(Reported by Victor E. Schulze, Secretary)

Surgical Diseases of the Pancreas; Split Skin Grafting (Motion Picture)—Edgar J. Poth, Associate Professor of Surgery, University of Texas School of Medicine, Galveston.

Tom Green Eight County Medical Society met March 6, at the Cactus Hotel, San Angelo, with thirty-nine members and visitors present. J. M. Rape, president, presided.

The scientific program as given above was carried out.

Dr. Poth, in his discussion of surgical disease of the pancreas, stressed the surgical accessibility of the organ, and gave a comprehensive description of its embryology, anatomy, and physiology. He described the various operative techniques used in performing partial and total pancreatectomies. Following his address, Dr. Poth with Dr. V. E. Schulze, presented a patient, aged 74, on whom a partial pancreatectomy was done by Dr. Poth more than a year ago, for carcinoma of the head of the pancreas. The continuity of the pancreatic duct to the intestine in this case had been re-established over a metal tube.

Following this presentation, Dr. Poth showed a colored motion picture film illustrating his technique and an especially designed instrument for split skin grafting. The procedure described apparently has many advantages over methods generally employed.

Both subjects of Dr. Poth received enthusiastic discussion.

Other Proceedings.—O. J. Hartig, San Angelo, was elected to membership by transfer from Tulsa County Medical Society, Oklahoma, and Edward H. Strauss, Eden, was elected by transfer from the Lavaca County Medical Society.

Secretary Schulze reported that he had apprised the editor of the TEXAS STATE JOURNAL OF MEDICINE regarding the position of Congressman O. C. Fisher on the Wagner-Murray-Dingell Bill.

President Rape reported that he had been requested by the telephone company to urge members of the Society not to endorse demands for telephone installations made by patients, because of the scarcity of available telephones.

The chairman of the public relations and legislative committee reported as follows:

1. That the City Commission had adopted an ordinance creating a legalized City Board of Health, the ordinance having been previously approved by the Public Relations and Legislative Committee.
2. That the City Commission through the Mayor has expressed itself receptive to nominations for the medical society representation on the City Board of Health.
3. That the Public Relations and Legislative Committee members were unanimous in their *disapproval of public-relations endeavors exclusively devoted to a defensive-negative action.*
4. That the A. M. A. Council of Medical Service and Public Relations Secretary, Dr. G. Lombard Kelly, had completely evaded the Society Committee's inquiry in reference to the American Association of Physicians and Surgeons

F. T. McIntire moved that V. E. Schulze and A. L. Lewis be nominated as representatives of the Society on the City Board of Health, which motion was seconded by R. L. Powers and carried.

A. L. Lewis moved that consideration of financial contributions to the public relations activities of the State Medical Association and discussion of the American Association of Physicians and Surgeons be deferred pending study and recommendations by the public relations and legislative committee of the Society, which motion was seconded by F. T. McIntire and carried.

J. P. McAnulty discussed the qualifications of Dr. Albert O. Singleton of Galveston, for the office of president-elect of the State Medical Association.

F. T. McIntire moved that the delegate from Tom Green Eight county Society be apprised of the Society's favorable attitude toward the nomination of Dr. Singleton to this office. The motion was seconded by David McCullough, and carried.

April 3, 1944

Hypertension—Raymond Gregory, Professor of Pharmacology, and Associate Professor of Medicine, University of Texas School of Medicine, Galveston.

Tom Green Eight County Medical Society met April 3, at the Cactus Hotel, San Angelo, with thirty-five members and visitors present. J. Marvin Rape, president, presided. The scientific program as given above was carried out.

Dr. Gregory gave a comprehensive discussion of the subject of hypertension. An excellent classification was presented, and milestones in the evolution of the subject were considered in sequence to its present-day concepts. The therapeutic implications of the Goldblatt, or renal (humoral) hypothesis were considered in detail with reference to the kidney extract of Page, and to the rationale of nephrectomy in unilateral nephropathies. The essayist asserted that results of surgery on the sympathetic nervous system, especially by the Smithwick procedure based upon the neurogenic concept of the origin of the vasospasm, gave greater promise. Dr. Gregory stated that by observations made on hypertension, and normotensive persons under spinal anesthesia, and through bio-assay of ultrafiltrates of blood from normotensive persons made hypertensive, with angiotonin, as compared with similar filtrates from the blood of hypertensive patients, cogent evidence has been obtained favoring the neurogenic hypothesis of essential hypertension, and supporting the rationale of the neurosurgical approach in therapy.

Other Proceedings.—Secretary Schulze reported on communications from Mrs. J. B. Chaffin, expressing appreciation for sympathy and floral offering in connection with the death of Dr. Chaffin; expression of appreciation of his visit, from Dr. Edgar J. Poth of Galveston, and advising that he would submit his paper on "Surgical Diseases of the Pancreas" to the TEXAS STATE JOURNAL OF MEDICINE for publication; from Dr. George W. Cox of Austin, acknowledging receipt of certified minutes of the Society's meeting of February 27, 1944; from Dr. E. A. Rowley, councilor of the Third District, regarding an increase in State Association dues; and from Dr. Holman Taylor, State Secretary, regarding the membership status of Dr. C. E. Mays, honorary member.

A. L. Lewis moved that Jerome H. Smith, delegate, be instructed to use his own judgment with regard to the matter of whether or not the State Medical Association dues should be increased, which motion was seconded by Dewey Sutton, and carried.

J. A. Bunyard moved that C. E. Mays be readmitted to honorary membership, which motion was seconded by W. T. Anderson, and carried.

President Rape appointed J. S. Hixson, J. F. Jones, and C. T. Womack to serve as a resolutions committee.

A. L. Lewis, member of the Board of Censors, discussed the ethical status of a physician applying for membership.

F. T. McIntire discussed the desirability of a joint meeting of the Tom Green Eight County Medical Society and the Fourth District Medical Society, and suggested that the matter be discussed with the state office. The proposal was further discussed by W. E. Schulkey, C. T. Womack and J. P. McAnulty.

Tom L. Husbands moved that the Society go on record as favoring a joint meeting with the Fourth District Medical Society in the fall, which motion was seconded by W. J. Swann, and carried.

V. E. Schulze, a member of the public relations committee of the State Medical Association, gave a brief report of the program of that Committee as planned in a recent meeting of the Committee at San Antonio.

Tarrant County Society

March 7, 1944

(Reported by Craig Munter, Secretary)

Vitamins (Motion Picture)—Shown Through the Courtesy of Lederle Laboratories.

Tarrant County Medical Society met March 7, with fifteen members present.

A motion picture on vitamins was shown through the courtesy of Lederle Laboratories.

In the absence of the secretary, President Sanders read a communication from Galveston County Medical Society regarding proposal of the name of Dr. A. O. Singleton of Galveston for president-elect of the State Medical Association at the forthcoming meeting of the House of Delegates in Dallas.

Resolutions of sympathy were adopted on the death of Mrs. Lydia Tottenham, mother of Dr. J. W. Tottenham, Sr., of Fort Worth.

President Sanders announced that he had received a communication from the Southwestern Bell Telephone Company regarding emergency telephones, in which it was asked that physicians not ask for additional telephones unless a real emergency existed. It was reported that there were 60,000 tele-

phones in Fort Worth, with 4,500 on the waiting list.

The attendance prize, a carton of tobacco, was won by C. S. Woodward.

April 11, 1944

Arteriovenous Fistula—Report of Four Cases—T. H. Thomason, Fort Worth.
Carotid Cavernous Arteriovenous Aneurysm—Charles E. Ball, Fort Worth.
The Fight Against Socialized Medicine and the Blue Cross plan—Mr. James W. Hagood, Representative of Group Hospital Insurance.

Tarrant County Medical Society met April 11, with twenty-four members and one visitor present. The scientific program as given above was carried out. The papers by T. H. Thomason and C. E. Ball were discussed by W. O. Ott.

President Sanders announced that the Fort Worth Tarrant County Tuberculosis Society would celebrate its twenty-fifth anniversary with a dinner on April 11, at which time Lewis J. Moorman, Oklahoma City, president of the National Tuberculosis Association, would be the guest speaker. Members were urged to attend.

The secretary read a report regarding a meeting of the trustees and the board of directors of the Society held April 1, at which time it was voted that $250.00 be donated from the savings account of the Society to the Public Relations Fund of the State Medical Association to oppose socialized medicine.

R. H. Gough, chairman of the board of trustees of the Society, asked that action be taken on the matter by the Society.

Judge M. Lyle moved that the Society approve the action of the Trustees and board of directors, which motion carried.

The attendance prize, a desk set, was won by John J. Andujar.

Van Zandt County Society

March 13, 1944

Intestinal Obstruction—L. W. Johnson, Terrell.
Diseases of Bone—H. A. Baker, Wills Point.

Van Zandt County Medical Society met March 13, at Grand Saline, in the offices of Dr. V. B. and R. W. Cozby. The scientific program as given above was carried out.

Young-Jack-Archer Counties Society

March 8, 1944

(Reported by E. Filmore Meredith, Secretary)

Young-Jack-Archer Counties Medical Society met March 8, in Olney, with ten members and two guests present. R. P. O'Bannon and Will Horn, Fort Worth, were guest speakers. Following their addresses, a business session was held.

It was voted to send a check for $27.50 to the State Medical Association for the Public Relations fund.

Literature describing the disadvantages of socialized medicine was distributed.

The Society will hold its next meting in Jacksboro in June. At the conclusion of the meeting a banquet was held.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. A. B. Pumphrey, Fort Worth; President-Elect, Mrs. S. E. Thompson, Kerrville; First Vice-President, Mrs. E. W. Coyle, San Antonio; Second Vice-President, Mrs. Henry Harrison, Bryan; Third Vice-President, Mrs. E. H. Marek, Yoakum; Fourth Vice-President, Mrs. Ramsay Moore, Dallas; Recording Secretary, Mrs. Mark Latimer, Houston; Corresponding Secretary, Mrs. W. F. Armstrong, Fort Worth; Publicity Secretary, Mrs. T. H. Thomason, Fort Worth; Treasurer, Mrs. W. A. Minsch, Kerrville; Parliamentarian, Mrs. R. B. Homan, Jr., El Paso.

AUXILIARY NEWS

Bell County Auxiliary met March 10, at the home of Mrs. M. W. Sherwood, Temple.

Mrs. G. V. Brindley introduced Captain Harold Altman, orthopedic surgeon of McCloskey General Hospital, who gave an interesting talk on sixteen months' experience in islands in the South Pacific area. The climate, people, customs and difficulties encountered in setting up a medical base were described. Captain Altman emphasized the value of blood plasma which is being collected by the Red Cross.

Following the program, Mrs. A. C. Scott, Sr., served salad, and Mrs. Brindley poured coffee.

Dallas County Auxiliary held its annual guest day meeting at the Melrose Hotel, Dallas, April 5.

Mrs. V. Y. Rejebian, guest speaker, was introduced by Mrs. Penn Riddle, and reviewed "Tomorrow —the World."

Mrs. T. W. Bywaters, entertainment chairman, was assisted by Mrs. John Pace. Mrs. John McLaurin and Mrs. Dero Seay presided at the coffee table. Members of the social committee were hostesses.

At a meeting of the executive board, it was voted to donate $50.00 to the Red Cross, and $50.00 to the War Chest.

On May 10 and 11, the Dallas County Auxiliary is looking forward to being hostesses to the State Executive Board of the Auxiliary.

Mrs. Elma Curtice Rosser, wife of Dr. C. M. Rosser, Dallas, died April 7, 1944, at her home, after an extended illness.

Mrs. Rosser came to Dallas with Dr. Rosser shortly after their marriage in 1891 in Kentucky. She was a charter member of the Dallas County Auxiliary, Dallas Woman's Forum, Dallas Kentucky Club, and a member of the Dallas Woman's Club and Dallas Southern Memorial Association. She is survived by her husband; a son, Dr. Curtis Rosser, and a daughter, Mrs. George McBlair, all of Dallas.

DeWitt-Lavaca Counties Auxiliary met in the home of Mrs. M. G. Duckworth, Cuero, with Mrs. J. W. Boyle, president, presiding.

Reports were received revealing that members had given generously of their time to all types of Red Cross activities.

Officers for the ensuing year were elected as follows: Mrs. R. M. Milner, Yoakum, president; Mrs. Gillette Burns, Cuero, president-elect; Mrs. G. E. King, Cuero, first vice-president; Mrs. H. Renger, Hallettsville, second vice-president; Mrs. L. B. S. Richter, Yoakum, secretary-treasurer; Mrs. J. W. Boyle, Shiner, parliamentarian.—Mrs. F. M. Wagner, Secretary.

Harris County Auxiliary held its annual "Doctors' Day" program, at the Art Museum, Houston, March 27.

Dr. Edward H. Cary, Dallas, chairman of the National Physicians Committee, and a past president of the State and American Medical Associations, was guest speaker. Dr. Cary gave an informative and forceful address on measures being used to combat the socialization of medicine in the United States. There were 175 ladies in attendance on the meeting.

Following the program, there was a social hour and brunch.

Hunt-Rockwall-Rains Counties Auxiliary held its annual business meeting recently in the home of Mrs. M. L. Wilbanks, Greenville, with nineteen members present. Mrs. W. B. Reeves and Mrs. J. W. Swindell were co-hostesses with Mrs. Wilbanks.

Mrs. J. S. Cooper read from the twenty-third Psalm after which the Lord's Prayer was repeated in unison.

Mrs. J. W. Ward introduced Dr. T. O. Perrin, chairman of the Hunt County Chapter of the American Red Cross, who presented the plan for securing the mobile unit of the blood donor center from the Dallas Red Cross Chapter.

The Auxiliary voted to accept the responsibility of sponsoring the unit in Hunt County, and Mrs. Ward was elected chairman of the blood donor service committee.

Mrs. B. F. Arnold reported thirty subscriptions to *Hygeia*, eight of which were gifts of the Auxiliary to schools, libraries, and the U. S. O.

Officers for the ensuing year were elected as follows: Mrs. J. S. Cooper, president; Mrs. E. R. Hayes, first vice-president; Mrs. W. P. Philips, second vice-president; Mrs. Will Cantrell, third vice-president; Mrs. H. W. Maier, recording secretary; Mrs. E. Truett Crim, publicity secretary; Mrs. W. B. Reeves, corresponding secretary; Mrs. E. P. Goode, treasurer; Mrs. J. C. Trentham, historian; Mrs. M. L. Wilbanks, parliamentarian; Mrs. Anna Becton Boykin and Mrs. Joe Becton, delegates to the City Federation; Mrs. Benton Clark and Mrs. Royal Kay, alternates.

After the meeting, a refreshment plate was served by the hostesses.—Mrs. W. B. Reeves.

The South Texas District Auxiliary met in the afternoon of March 27, at the Art Museum, Houston, with Mrs. A. B. Pumphrey, Fort Worth, State President, as an honor guest.

Officers of the District Auxiliary were elected as follows: Mrs. L. L. D. Tuttle, Houston, first vice-president; Mrs. Jack Bartell, Conroe, president; Mrs. Ralph Bellamy, Liberty, president-elect; Mrs. W. B. Potter, Galveston, second vice-president; Mrs. H. E. Alexander, Beaumont, third vice-president; Mrs. Frank Iiams, Houston, recording secretary; Mrs. Winston Thiltgen, El Campo, corresponding secretary; Mrs. Fred Durrance, Houston, press secretary; Mrs. Robert Hasskarl, Brenham, treasurer; Mrs. E. H. Marek, Yoakum, parliamentarian.—Mrs. T. L. Holland.

DEATHS

Dr. Albert D. Gibson of Port Lavaca, Texas, died January 6, 1944, of uremia, in a Victoria hospital.

Dr. Gibson was born November 20, 1874, in St. Austell, Cornwall, England, the son of Rev. and Mrs. John W. Gibson. In 1883, he came to the United States with his parents, who then lived in various places in Illinois and Wisconsin. Dr. Gibson received his academic education in the public schools of Springfield, Illinois, and Kaukauna, Wisconsin. His medical education was received in the Wisconsin College of Physicians and Surgeons, Milwaukee, from which he was graduated in 1897. He began the practice of medicine in Park Falls, Wisconsin, where he remained until 1908, with the exception of eight months in Kaukauna in association with his preceptor, Dr. Tanner. In 1908, Dr. Gibson removed to Port Lavaca, Texas, where he had been in active practice for more than thirty-five years.

Dr. Gibson had been a member for many years of the Victoria-Calhoun Counties Medical Society, State Medical Association and American Medical Association, and was in good standing at the time of his death. He had served Port Lavaca as health officer, and was assistant surgeon in the U. S. Public Health Service. He was local surgeon for the Southern Pacific Railroad. During World War I, he served as a member of the Selective Service Committee of his community and during the second World War, as an examiner of selectees. In addition to serving his community well as a beloved general practitioner, he had taken part in every worth-while civic enterprise. Shortly after his location in Port Lavaca, he helped organize the Presbyterian Church, which institution he served as an elder and superintendent of the Sunday School for many years. He also helped organize the First State Bank of Lavaca and was a charter member of the local Rotary Club and a member of numerous civic and fraternal organizations.

Dr. Gibson was married July 19, 1898, to Miss Clara M. Eckardt of Kaukauna, Wisconsin. He is survived by his wife; six sons, Donne Evans, a master sergeant now in Italy; Wallace Eckardt, Panama Canal Zone; Dr. Norman Tanner Gibson, a captain in the medical corps; Gordon Russell; Robert Lee, a warrant officer in Southwest Pacific area; and Paul Byron, technical sergeant in the medical corps; two brothers, and two sisters.

Dr. Charles M. MacNelly of Weatherford, Texas, died February 5, 1944, of coronary occlusion.

Dr. MacNelly was born May 7, 1875, in Wilmington, Delaware. His academic education was received in the public schools of that state. His medical education was obtained in the medical department of the University of Nashville, Tennessee, from which he was graduated in 1898. He practiced for a short period of time at Ryan, Oklahoma, following which he located in Palo Pinto, Texas, where he was in practice for four years. He then removed to Weatherford, where he was in active practice for forty-one years.

Dr. MacNelly was a member of the State Medical Association and American Medical Association continuously during his years of practice in Texas, first through the Parker County Medical Society and through the Palo Pinto-Parker Counties Medical Society after the latter was organized. He had served Parker County Medical Society as secretary. He was also a member of the Southern Medical Association. During the first World War, he served as a captain in the medical corps of the Fifty-Seventh Regiment of the United States Army. During his years of practice he had taken postgraduate work at Jefferson Medical College, Philadelphia. He was especially interested in Masonry, and had held high offices in the orders of Masonry from the Blue Lodge to the Commandery. He was a charter member of the Moslah Shrine Temple, Fort Worth. He was also Past Commander of the Parker County Post, American Legion. For many years, Dr. MacNelly served as physician for the Pythian Home, Weatherford. He was held in high esteem by all who knew him and had served his community well as a physician and citizen.

Dr. McNelly was married December 21, 1898, to Miss Anna Margaret Freiling of Philadelphia, Pennsylvania. He is survived by his wife, and one brother, A. C. McNelly, Weatherford.

Dr. Ernest E. Shivers of Lexington, Texas, died suddenly March 5, 1944, at his home, of coronary occlusion.

Dr. Shivers was born May 29, 1881, in Sunflower County, Mississippi, where he was reared. His academic education was received in the Iuka Normal Institute, Iuka, Mississippi, from which he was graduated with the B. S. degree in 1898. His medical education was obtained in the University of the South, Sewanee, Tennessee, from which he was graduated in 1901, at the age of 21. After his graduation, he served an internship in the Vicksburg State Hospital, and the U. S. Marine Hospital at Vicksburg, Mississippi. He began the practice of medicine at Lafollet, Tennessee, later removing to Bayle, Mississippi, where he was in practice until 1926. He then lived and practiced at Davis, Oklahoma, until 1939, at which time he removed to Lexington, Texas, which was his home for the remainder of his professional life.

Dr. Shivers was a member of the Lee County Medical Society, State Medical Association and American Medical Association during his practice in this

State. During his residency in Tennessee and Oklahoma, he was a member of county and state associations in these states. He served Lee County Medical Society as president in 1939 and 1943. He was city health officer of Lexington at the time of his death.

During the first World War, Dr. Shivers served as a captain in the medical corps of the United States Army, being stationed at Camp Sheridan, Alabama. During his residency in Oklahoma, he served as city health officer of Davis, and was local surgeon for the Santa Fe Railroad. He also served as local surgeon for the Southern Pacific Railway after his location in Lexington, Texas. He had taken postgraduate work at clinical centers during his years of practice. He was a member of the Methodist Church, and a thirty-second degree Mason. Dr. Shivers was a physician of ability, with high ideals and held in the highest esteem by all who knew him.

Dr. Shivers was married twice. He is survived by Mrs. Dorothy Coleman, a daughter by his first marriage. His second marriage was to Miss Beulah Boyer of Sunflower County, Mississippi, on January 16, 1911, who survives him. He is also survived by two sons by his second marriage, Captain Gerold W. Shivers, now in Italy; Ernest E. Shivers, Jr., with the U. S. Marine Corps in San Diego, California, and three daughters, Mrs. Delores McRee, Lexington, Mrs. Ingomar McNiel, Lubbock, and Miss Imogene Shivers, Houston.

Dr. Eugene O. Boggs of Spring, Texas, died March 15, 1944, of heart disease, at the home of his eldest daughter, in Corpus Christi, Texas.

Dr. Boggs was born August 18, 1866, near Centerville, Leon County, Texas, the son of Dr. DeVotie and Sarah A. E. (Traweek) Boggs. His academic education was received in the public schools and the Texas A. & M. College, Bryan. His medical education was obtained in the St. Louis College of Physicians and Surgeons from which he was graduated in 1892. He had lived and practiced in Leon, Jasper and Harris Counties from 1892 until his death. He was associated in practice with his father, a pioneer Texas physician, until his father's death in 1902. Before the second World War, because of his physical condition and the ill health of his wife he had considered retirement, but after this country entered war, Dr. Boggs continued the practice of medicine and worked unceasingly until his final illness and death.

DR. EUGENE O. BOGGS

Dr. Boggs was a member continuously in good standing of the State Medical Association and American Medical Association through the Leon County Medical Society and, after its organization, of the Anderson-Houston-Leon Counties Medical Society, being a charter member of the last two named organizations. He was elected an honorary member of the State Medical Association in 1935, which membership status continued until his death. During the first World War, he served as examining physician and member of a local Selective Service Board. He was also a member of the Volunteer Medical Corps. He was a member of the Texas Railway Surgeons Association. For many years he was the only physician in his community and in addition to taking care of its medical needs, operated the only drugstore. He was a typical example of the family physician, "horse and buggy" type of general practitioner, so beloved by the American public because of the unselfish services they have rendered without thought of money or reward.

Dr. Boggs was married January 15, 1888, to Miss C. Ammye Smith in Marquez, Texas. He is survived by his wife; two sons, Eugene D. Boggs, Pasadena, and Stevenson V. Boggs, a naval warrant officer now on overseas duty; and two daughters, Mrs. W. H. Lester and Mrs. Stella Lee Hillegeist, Corpus Christi. He is also survived by two brothers, Eric Boggs and Vivian Boggs of San Antonio; and three sisters, Mrs. A. M. Johnson, Marquez, Mrs. Stella McDonough, Orange, and Mrs. S. N. Aston, Coleman.

Dr. J. B. Chaffin of San Angelo, Texas, died March 21, 1944, of coronary occlusion, in the home of a patient, immediately following an obstetrical delivery.

Dr. Chaffin was born August 12, 1879, in Sommerville, Tennessee, the son of Mr. and Mrs. L. C. Chaffin. He came to Texas with his parents at the age of four. His academic education was received in the public schools of Waco, and Southwestern University, Georgetown. His medical education was obtained in the medical department of the University of Texas, Galveston, from which he was graduated in 1906. After graduation, he served an internship two years in John Sealy Hospital, Galveston, following which he practiced for four years in Waco. In 1912, Dr. Chaffin removed to San Angelo, which was his home for the remainder of his professional life.

DR. J. B. CHAFFIN

Dr. Chaffin had been a member for many years of the State Medical Association and American Medical Association through the county medical societies of his places of residence. He served Tom Green County Medical Society two terms as president. He was also a member of the Fourth District Medical Society. He was a member of the Methodist Church and a Mason; a member of the Knights of Pythias, Elks and Woodmen of the World fraternal organizations. Dr. Chaffin was highly regarded as a conscientious, capable general practitioner. He had given unstintingly of his time and ability to his

patients, and was genuinely beloved by them. The high esteem in which he was held in his home community is revealed in the following excerpt from an editorial tribute in the San Angelo *Standard Times:* "It was said by Dr. Chaffin's friends that he could be had on call at any time by the lowliest citizen in the community without regard to thought of reward. As such he was a real bulwark against the trend in this country toward socialized medicine, for it is among the ranks of those who cannot afford to pay for hospital care and those so economically burdened they cannot get medical service at the time of need that support for this stems. Dr. Chaffin tendered real honor to his profession and his death at a time of emergency on the health front of the nation by reason of military demands on the medical fraternity adds to the feeling of community loss."

Dr. Chaffin was married December 25, 1915, to Mrs. Bertha Dabezies at Austin, Texas, who survives him. He is also survived by two sisters, Mrs. E. L. Bandy, Bruceville, and Mrs. John Morgan, Miami Beach, Florida.

Dr. R. E. DeWitt of Abilene, Texas, died suddenly April 2, 1944, of coronary occlusion.

Dr. DeWitt was born October 25, 1879, in Cooper, Texas, the son of Mr. and Mrs. L. N. DeWitt. His academic education was received in the schools of that community and Atlanta, Georgia. His medical education was obtained in the Georgia College of Eclectic Medicine and Surgery from which he was graduated with honors in 1899. He began the practice of medicine in Lamar County, Texas, later removing to Dallas, where he was in general practice for twenty years. He then became interested in public health work, and served as director of the Delta County Health Unit. Following that, he accepted a position as assistant superintendent of the Austin State School, remaining in that office only a short period of time before accepting the position as director of the Abilene-Taylor County Health Unit October 18, 1943. He had continued in this capacity until his death.

DR. R. E. DEWITT

Dr. DeWitt had been a member for many years of the State Medical Association and American Medical Association through the county medical societies of his various places of residence, and was in good standing at the time of his death. He was a member of the Baptist Church, a thirty-second degree Mason, and a member of the Shrine. He was also a member of the Woodmen of the World. He was held in high esteem by all who knew him.

Dr. DeWitt is survived by his wife, the former Miss Ina Robertson of Dallas; three daughters by a previous marriage, Mrs. Dixon B. Shelton, Paris, Mrs. F. C. LaPrell and Mrs. Pat H. Mackey, Dallas; and three sisters, Mrs. Ada Chambers, and Mrs. B. B. Sandlin, both of Enloe, Texas, and Mrs. Arch Carrington, Cooper, Texas.

Major William Reemtsma, M. C., Army of the United States, of New Braunfels, Texas, prior to his entry in the armed services, was killed in action somewhere in Italy, November 29, 1943.

Dr. Reemtsma was born October 4, 1901, in Nolles County, Minnesota, the son of the late Mr. and Mrs. G. A. Reemtsma. His academic education was received in Southern Methodist University, Dallas, from which he was graduated with the B. S. degree. His medical education was obtained in Baylor University College of Medicine from which he was graduated in 1933. After graduation, he served an internship in Lakeview Hospital, Chicago. He then began the practice of medicine in New Braunfels, Texas, where he remained until he accepted a commission in the medical corps of the Army of the United States in 1941.

Dr. Reemtsma was a member continuously in good standing of the Comal County Medical Society, State Medical Association and American Medical Association, during his professional life. He served Comal County Medical Society as secretary continuously from 1936 to 1940, inclusive. He had also served as health officer of Comal County. He was a well-educated, capable physician and his untimely death in the service of his country was a loss to his community and the medical profession of Texas.

Dr. Reemtsma is survived by his wife, the former Miss Bernice Kay of Stephenville, Texas. He is also survived by three sisters, Miss Ella Reemtsma, Mrs. Jennie West, and Mrs. Florence Ahders; and four brothers, Archie, Herman, Jacob and Theodore Reemtsma.

Dr. Edwin Davis of Fort Worth, Texas, died April 6, 1944, of pulmonary embolism, caused by a suppurative pneumonitis of several weeks duration.

Dr. Davis was born November 8, 1874, in Helena, Alabama, the son of Mr. John Davis and Mrs. Margaret (Anderson) Davis. His academic education was received in the schools of that state. His medical education was obtained in the old Fort Worth Medical College, from which he was graduated in 1911. He then served an internship in Willard-Parker Hospital and the Old German Hospital, New York City, where he studied under the famous Dr. Williemeyer. He began the practice of medicine at Fort Worth, which was his home for the remainder of his professional life.

DR. EDWIN DAVIS

Dr. Davis had been a member for many years continuously of the Tarrant County Medical Society, State Medical Association and American Medical

Association. He served Tarrant County Medical Society as president in 1923. He was one of the first staff members of the Children's Hospital, and had served as a member of the staff of most of the hospitals in Fort Worth. For many years he served as chief of staff of the department of gynecology at the City-County Hospital. He was a member of Phi Chi medical fraternity, and a Mason. He was also a member of the Kiwanis Club, and regularly attended services of the First Presbyterian Church. Dr. Davis was a competent physician who was endeared to his patients because of his sympathetic understanding of their problems and his kindly treatment of them. He was a scholarly physician and beloved generally by his medical associates and the citizenship of Fort Worth. He will be sorely missed by all who knew him.

Dr. Davis was married December 3, 1903, to Miss Jennie D. Snyder of Fort Worth. He is survived by his wife; one daughter, Mrs. Carson Davis, Fort Worth, and a son, Lieut. Edwin Davis, now in the South Pacific area. He is also survived by two sisters, Mrs. J. E. Beasley, Nashville, Tennessee, and Mrs. Fred Hillman, Blockton, Alabama; and two half-brothers, Lloyd Davis, and Cecil Davis, both of Birmingham, Alabama.

Dr. Charles R. Hargrove of Marshall, Texas, died March 26, 1944, at his home, of heart failure.

Dr. Hargrove was born January 12, 1860, in Harrison County, Texas, the son of Richard Henry and Ann Elizabeth Hargrove. His academic education was received in Marshall University, Marshall. His medical education was obtained in the University of Louisiana, the predecessor of Tulane University, New Orleans, from which he was graduated in 1883. After his graduation, he served an internship in Charity Hospital, New Orleans. He then practiced for a short period of time at Lampasas, and Ballinger, Texas, after which he located at Marshall, which was his home for fifty-nine years.

DR. C. R. HARGROVE

Dr. Hargrove was for many years a member of the Harrison County Medical Society, State Medical Association and American Medical Association. He was also a member of the Tri-State Medical Society of Texas, Arkansas, and Louisiana. He was a past president of the Harrison County Medical Society and the Tri-State Medical Society. He was elected an honorary member of the State Medical Association in 1934. During his years of active practice he served as local surgeon of the Gulf Coast and Santa Fe Railway, and was also city health officer. During World War I, he was a member of the Council of Defense. He also served for several years as president of the District Board of Medical Examiners and was city health officer of Marshall for thirteen years. Dr. Hargrove was a member of the Baptist Church, which institution he had served as senior deacon. He was the oldest living Past Master of the local Masonic Lodge at the time of his death. While he had been retired for ten years, prior to that he had served for more than fifty years in the practice of his profession.

Dr. Hargrove was married February 3, 1866, to Miss Balla Harris of Lampasas, Texas. His wife died in 1934. He is survived by three sons, Ercelle R. and R. R. C. Hargrove of Marshall, and Reete L. Hargrove of El Dorado, Arkansas; two brothers, Raymond Hargrove of South Dakota, and Leon Hargrove of Bonham, Texas; and a sister, Mrs. Ruthella Feild, Marshall.

Capt. E. D. Riley, M. C., United States Army Reserve, of Terrell, Texas, prior to his entry into the armed services, died February 17, 1944, in the Brooke General Hospital, Fort Sam Houston, of brain tumor. The symptoms of brain tumor were first exhibited while he was in active service in India. He was brought by airplane to Atlanta, Georgia, where he was operated on and then sent to Brooke General Hospital, Fort Sam Houston. Dr. Riley was born March 22, 1911, in Lytle, Texas, the son of Mr. and Mrs. John Frank Riley. His academic education was received in the public schools of Lytle, and Baylor University, Waco, which he attended from 1929 to 1932. His medical education was received in Baylor University College of Medicine, from which he was graduated in 1937. He then served an internship in Shreveport Charity Hospital. Dr. Riley began practice at Terrell, Texas, where he was associated with the Alexander Hospital until he entered the medical corps of the Army in February, 1941. He was stationed for fourteen months at Camp Barkeley, from where he was sent overseas to serve as chief surgeon in a field hospital in India for sixteen months.

CAPT. E. D. RILEY

Dr. Riley was a member of the Kaufman County Medical Society, State Medical Association and American Medical Association during his professional life. He was a member of Phi Chi medical fraternity and of the Baptist Church. His friendly, cheerful, generous personality endeared him to all with whom he came in contact. His untimely death cut short a life of promised usefulness.

Dr. Riley was married December 12, 1936, to Miss Anna Louise Bleibler of Dallas. He is survived by his wife; two daughters, Mary Ann and Lydia Sue, ages 5½ and 4½, and his father, John Frank Riley, Lytle. He is also survived by two brothers, Dr. Pat Riley, Mission, and Dr. George T. Riley, Binghamton, New York; and two sisters, Mrs. William McNiel, San Marcos, and Mrs. Earl Mungle, Binghamton, New York.

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H. F. CONNALLY, M. D., F. A. C. S.
WACO, TEXAS
Eightieth President, State Medical Association of Texas

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

Dr. Herchel Frank Connally, the Eightieth President of the State Medical Association of Texas, was born January 6, 1878, in an old Indian village, or meeting point, known in those days as Comanche Springs, Texas, located on the early day Waco-to-Hamilton stage coach line, some three miles west of the present town of McGregor. His father, Thomas G. Connally, served for four years in the Confederate Army. Immediately following the close of the War Between the States, he married Mary Samanthia Christian, of Murray County, Georgia, removing to Texas in 1868 and locating on the prairie near Comanche Springs, where the couple established themselves on a little farm. In 1881, the St. Louis Southwestern Railroad was extended from Waco to Gatesville, crossing the Santa Fe at the point where McGregor now stands. The village of Comanche Springs was moved to that point, which, in fact, became the village of McGregor. The country thereabout immediately began to prosper, and the community rapidly increased in size. The prairie lands were put into cultivation and the large ranches converted into cotton fields. In 1890, the Connally family moved into the little city of McGregor for the benefit of the schools which had been established there.

Dr. Connally received his education in the schools of McGregor, including High School, and in Vanderbilt University, Nashville, Tennessee, from the Medical Department of which University he received the degree of Doctor of Medicine in May, 1900. He entered the private practice of medicine immediately following graduation, in the little town of Bruceville, not far removed from his own community. In 1904, he took a postgraduate course in medicine and surgery at the New York Polyclinic, and repeated in 1906. In 1907 he removed from Bruceville to Eddy, where he established a small hospital. In 1909, Dr. Connally spent a few months in the Chicago Post Graduate School, and did the same in 1912. On January 1, 1912, he removed to Waco, and limited his practice to general surgery. In 1914 he was made a Fellow of the American College of Surgeons.

Dr. Connally entered the Medical Reserve Corps of the Army in the beginning of the First World War, with the rank of Major. He was sent overseas as Chief of Surgical Service of Base Hospital No. 90. He was soon promoted to Lieutenant Colonel (1919), and placed in command of Base Hospital No. 90, with which unit he continued his service until July, 1919, at which time he returned to the States with his organization. While in France, Dr. Connally was given a postgraduate course in plastic surgery in the Hospital De-La Pétie, in Paris. He was discharged from the Army in August, 1919, and immediately returned to Waco and resumed his practice. In 1920, the Hillcrest Memorial Hospital was opened in Waco. Dr. Connally became its first Chief of Staff. When the Veteran's Hospital was opened there, in 1931, he was made Consulting Surgeon, a position which he still holds. He also continues as a member of the Surgical Staff of Hillcrest and Providence Hospitals.

Dr. Connally was a charter member of the McLennan County Medical Society, which was organized in 1903. He served as President of that Society, and subsequently as Councilor

of the Twelfth District of the State Medical Association. He was Chairman of the Board of Councilors at the time of his election to the office of President-Elect last year. He was elected Vice-President of the State Association in 1918, and again in 1932. These are only a few of the official positions in the State Medical Association held by Dr. Connally. He was active not alone in such connections, but in the scientific work of the Association as well. He was Chairman of the Section on Obstetrics and Gynecology in 1918, and of the Section on Surgery in 1937.

Dr. Connally has throughout been most active in civic affairs, including city, county and state politics. He served a time as Mayor of the City of Waco, and has since 1915 been a one hundred per cent attendance member of the Rotary Club in Waco. He served for a time as a member of the Board of Directors of the Chamber of Commerce of the City of Waco, and has been a member of the First Baptist Church of Waco for many years. He is a member of various Masonic Lodges of his city. He has been a member of the Texas State Board of Medical Examiners for eleven years, and Chairman of the Reciprocity Committee for the past eight years. His service in this connection has been outstanding, and is worthy of more extended comment than we are able to make here. In his capacity as Chairman of the Committee on Reciprocity, he has made frequent and extensive inspection trips over much of the United States.

In 1905, Dr. Connally married Miss Clara Blailock, daughter of Dr. W. R. Blailock of Dallas. Their family comprises two daughters, one son and seven grandchildren. One daughter, Mrs. J. Taylor Frazier, lives in Bluefield, West Virginia. The other daughter, Mrs. Elizabeth Connally Maness, resides in Waco. A son, Dr. H. F. Connally Jr., who graduated from the University of Texas School of Medicine in 1937, is a Captain in the Medical Corps of the Army, and is serving at the present time on the staff of McCloskey General Hospital, Temple, Texas, following extended foreign service in England, North Africa and Sicily. Captain Connally returned to the States in 1944.

Dr. Connally assumes the high and important office of President of the State Medical Association following an experience in medical society work which should fit him eminently for the service. He is well known to the medical profession of the State, and well liked. His administration will receive the enthusiastic support of his fellows in the Association.

The 1944 Annual Session was unique because of its distribution in the four cities of Austin, Fort Worth, San Antonio and Dallas, which distribution was necessary because no single city, under existing war conditions, could possibly provide the necessary facilities for the entire annual session, consisting of eight sectional meetings, besides the meetings of the House of Delegates, the general meetings, clinical luncheons, and memorial exercises, to say nothing of such important adjuncts as scientific and technical exhibits, and our fair ally, the Woman's Auxiliary.

The Section on Public Health was the first section to meet. Its sessions, held in the Driskill Hotel, Austin, April 20 and 21, were attended by 86 physicians interested in this field, including guests and officials of the Association.

On April 20 and 21, the Section on Medicine, Section on Eye, Ear, Nose and Throat, and Section on Pediatrics, met at the Hotel Texas, Fort Worth, with attendances of 170, 80, and 65, respectively, a total attendance of 315.

On May 3 and 4, the Section on Surgery, with an attendance of 136; Section on Obstetrics and Gynecology with 53; Section on Radiology and Physiotherapy with 37, and Section on Clinical Pathology with 38, met at The Gunter Hotel, San Antonio, the total attendance on the four sections being 264.

This was the first time any effort had been made to register physicians by sections, and 92 failed to indicate on their cards which section they attended. This number added to the figures for Austin, Fort Worth and San Antonio, gives a grand total of 757 physicians registered in attendance on the sectional meetings.

Dr. C. S. Venable of San Antonio, President of the Association, addressed the Section on Public Health at Austin; the three sections in a combined dinner meeting at Fort Worth, and the four sections in a combined dinner meeting at San Antonio, in addition to a later address to the House of Delegates meeting at Dallas, May 9 and 10.

There were no entertainment features at any of the meetings, because of conditions imposed by war, and lack of time, with the exception of a reception on the roof of the Plaza Hotel at San Antonio, given by Bexar County Medical Society, honoring President Dr. Venable, prior to the dinner meeting of the four sections on the evening of April 20, at The Gunter Hotel. Brief as it had to be, it was a wholly delightful occasion for all those attending the San Antonio sectional meetings, and their ladies.

We shall refer elsewhere in these columns to the attendance on the meeting of the House

of Delegates at Dallas, and the Annual Session of the Woman's Auxiliary will be fully reported in the columns of this number of the JOURNAL devoted to the transactions of that organization.

We wish to make of record here the fact that the programs of the Sections this year provoked more favorable comment, and those attending were more outspoken in their praise of the value and character of these meetings than at any time in our experience. Some expressed the opinion that the lack of any diverting influences contributed to a greater appreciation of the Section programs. The mere fact of omission of such meetings for one year may have caused a keener appreciation of them. Whatever the cause, other than the excellent programs presented, the comments were universally of the most favorable character. The meetings were a distinct success.

The House of Delegates referred to the Executive Council decisions as to dates and place of the next Annual Session, and that Council and the Council on Scientific Work, will again be called upon to determine the type of meeting and where it will be held for 1945.

The House of Delegates elected the following officers: President-Elect, Dr. C. C. Cody, Houston; Vice-Presidents, Dr. R. G. Jackson, New Gulf; Dr. E. W. Wright, Bowie; Dr. H. E. Whigham, McAllen; Trustee, Dr. J. B. McKnight, Sanatorium (re-elected); Councilors, Drs. R. T. Wilson, Austin, Seventh District (re-elected); F. J. L. Blasingame, Wharton, Eighth District (re-elected); J. E. Clarke, Houston, Ninth District (re-elected); A. E. Sweatland, Lufkin, Tenth District (re-elected); Delegates, Drs. H. R. Dudgeon, Waco (re-elected); B. E. Pickett, Carrizo Springs (succeeding Dr. A. A. Ross, who declined re-election); E. H. Cary, Dallas (re-elected); Alternate Delegates, Drs. E. W. Bertner, Houston (re-elected); H. Leslie Moore, Dallas (re-elected); A. C. Scott, Temple.

The following were elected to fill vacancies on Councils and Committees, with overlapping terms of office: Drs. A. P. Howard, Houston, member, Council on Medical Defense (re-elected); R. B. Alexander, Waco, member, Council on Scientific Work; H. R. Dudgeon, Waco, member, Council on Medical Economics (re-elected); J. Allen Kyle, Houston, member, Committee on Legislation (re-elected); H. W. Cummings, Hearne, member, Committee on Collection and Preservation of Records (re-elected); W. S. Barcus, Fort Worth, member, Committee on Health Problems in Education (re-elected); George T. Caldwell, Dallas, member, Committee on Cancer (re-elected); Dick P. Wall, Galveston, member, Committee on Postgraduate Medical Education (re-elected).

Dr. H. F. Connally, Waco, President-Elect last year, acceded to the office of President at the conclusion of the meeting of the House of Delegates, in accordance with the By-Laws of the Association.

The 1944 Meeting of the House of Delegates was held in Dallas, May 10-11. It will be remembered that the annual session this year included meetings of all of the Scientific Sections, but because of difficulties in transportation and in hotel accommodations, it was necessary to distribute these meetings among the several larger cities of the state. There were no Scientific Sections meeting in conjunction with the meeting of the House of Delegates, at Dallas, and there were those among the Delegates who felt that the absence of such diverting influences, as wholesome as such diversions are, helped no little in the matter of dispatching the business of the Association.

The attendance on the meeting of the House of Delegates this year was practically the same as that of last year. The attendance this year was 113, of which 86 were delegates elected by county medical societies, and 27 serving in an ex-officio capacity. Last year the attendance was 110, 81 being elected delegates, and 29 ex-officio. This ratio of the two groups is about right, being approximately one-third ex-officio and two-thirds elected delegates.

The Woman's Auxiliary met in Dallas at the same time. Their meeting was located across the street from our meeting. Thus we were in a position to continue the very helpful liaison that has existed between our two organizations now for a good many years.

Our own transactions and those of the Woman's Auxiliary are published in this number of the JOURNAL. We are extremely hopeful that our readers will give some study to at least our transactions. We know of no other way whereby our members can become acquainted with what our organization is doing and is trying to do, either in the matter of action or the formulation of policy. Important and informative reports were made to the House of Delegates at Dallas, and highly important decisions made.

The Publicity Campaign.—Perhaps of first interest to our members among the decisions made at Dallas, was the establishment of the Committee on Public Relations, with rather broad and sweeping duties. The Committee is to be appointed by the Board of Trustees, and its activities directed by the Board of Trustees, and, of course, the expenses of the Committee defrayed by the Trustees. A ten-

tative budget of $28,500 was set up for the first year, to cover a number of specified activities, all of which will be noted in the Transactions, published herein. It was necessary to raise the dues to $20.00 per year in order to cover the additional expenses.

It will be remembered that the committee was originally appointed by the retiring President of the State Medical Association, Dr. C. S. Venable. Its personnel in the beginning was small, with the chairman and co-chairman residing in San Antonio. A firm in San Antonio specializing in publicity matters was employed to direct the work of the Committee. President Dr. Venable and the Board of Trustees joined in asking for volunteer donations to cover the expenses of the Committee. The Trustees underwrote the cost of the enterprise. Dr. Venable, we may say at this time, will henceforth direct the activities of the Committee as Chairman. The new order will be a development of the present order. While it is assumed that the purpose of the Committee is to counteract the propaganda of those who would socialize medicine, and doubtless everything else, the real and fundamental reason for the campaign to be conducted by the Committee is that the public needs to be informed as to its best interests in connection with its health, and the practice of medicine. Opposition to socialized medicine is an incident. The education of the public in this respect follows the pattern of any other educational procedure. If it is not a continued, vigorous process, serious and fatal gaps will appear in the line because of the passage of time and the very well understood fact that time won't wait. Those of our number who have given the most study to the problem, feel sure that if the campaign now contemplated is continued with good financial support, the ultimate results will be a better educated and more competent medical profession, fewer quacks and cultists, and better health for our people. It should be worth the money.

Medical Economics again became one of the most important matters dealt with at our annual session. The report of the Committee on Medical Economics is one of the most informative reports ever presented to our House of Delegates. This Council, together with the Committee on Legislation, at the instance of the Executive Council, gave long and prayerful consideration to the problem of distributing medical service, and came up with an agreed policy, which the House of Delegates very promptly adopted. The conclusion was that there is nothing wrong with the principle of the prepayment plans for the distribution of medical care as conducted by corporations or organizations of any sort, so long as the plans are equitable, ethical, and serve the interests of the public. This means, of course, that there shall be no interference with the doctor or patient in the matter of their contractual relationship.

It will be remembered that the Executive Council some time ago adopted a policy under which no agency of the Association, including county medical societies, should enter into agreements and contracts with governmental or other such agencies for the purpose of supplying hospital and medical services to specified groups. This policy has been variously discussed, and its application to a variety of conditions studied. The House of Delegates has now said that it is entirely proper for such agencies to conduct such negotiation for such purposes, provided that the State Medical Association, through its Council on Medical Economics, acts as arbitrator and protector of the individual physician and the groups concerned, either in advance of the development of such plans, in connection therewith, or subsequent to their inauguration.

In this connection, it may be well to call attention to the fact that our Constitution and By-Laws have been amended or are in the process of being amended, so as to give the Association and its component medical societies the right to regulate fair dealings among our members, and to maintain and advance the standards of medical practice, all of which is in line with and following very closely the words of the now famous decision of the United States Supreme Court in connection with the case against the American Medical Association, the District of Columbia, and the Harris County (Texas) Medical Society. While it is generally agreed that the society could easily assume these rights by virtue of its present Constitution and By-Laws, the adopted amendments leave no doubt about it.

Military Membership was finally and permanently established by an amendment to the By-Laws on what is believed to be an equitable and practicable basis. Such memberships will continue to be available without cost, except that an assessment of $1.00 per year will be made on each such membership, to cover the cost of medical defense. Subscription to the JOURNAL will continue on a voluntary basis. Military membership will be available to doctors connected with the armed forces in time of war, and during such time only.

Additional amendments to the By-Laws were made as follows: increasing the dues to $20.00; establishing the Committee on Public Relations and setting up the publicity campaign; requiring the appointment of secretaries of scientific sections upon nominations of the chairmen of such sections, with the

power and the duty of appointing the chairmen remaining with the President of the Association; and setting up an additional Reference Committee for the House of Delegates, the new committee to be known as the "Reference Committee on Medical Service and Public Relations" to take over a large part of the too burdensome duties of the present "Reference Committee on the Reports of Officers and Committees."

Radiology was given strong support through the adoption of a resolution submitted by the Section of Radiology and Physiotherapy, in which resolution the specialty was recognized in so many words, and the practice of including Radiology as a part of hospital service, as such, in plans for distribution of hospital and medical service, was condemned. This resolution will have a distinct bearing on the activities of our Council on Medical Economics, no doubt, when the Council takes under consideration the matter of "accepting" plans for the distribution of medical and hospital services by corporations, agencies and the like.

Revision of the State Sanitary Code was called for by a resolution submitted by our Section on Public Health. Urging revision of this ancient and more or less accepted state law has long been advocated by the State Medical Association.

Repeal of the State Food Handlers' Certificate Law was asked for in a resolution submitted by the Section on Public Health. The resolution was approved, and the matter referred to the Legislative Committee.

A School of Public Health at one of our medical colleges, and in some connection with the State Health Department, was asked for by another resolution submitted by our Section on Public Health, which was adopted after amendment that such schools be inaugurated in connection with each class A medical college in the state.

The International Medical Congress was organized at Laredo, Texas, February 17-18, 1944, with the Texas Tuberculosis Association and the Southwest Texas District Medical Society, among a number of other organizations perhaps, as sponsors. The State Medical Association was asked to join in the sponsorship, which was promptly done. It is expected that this organization will do much to better health conditions not merely along the Mexican Border, but by indirection in many other parts of the country.

A Slogan was recommended to our Committee on Public Relations by the North Texas District Medical Society, to be used in connection with the publicity campaign, as follows: "It is true that we do have an economic problem in the practice of medicine, but it is unwise for us to exchange an economic for a political problem."

Medical Licensure.—The Committee on Medical Licensure submitted to the House of Delegates a thoroughly informative report, the reading of which is earnestly recommended to each member of the Association. The report gives the history of the work of the Committee, brings it up to date, and recommends that no legislative activities pertaining to medical licensure be undertaken for the duration of the war, except upon direction of either the House of Delegates or the Executive Council, in either of which instances the Legislative Committee has been directed to act in accordance with instructions. The Committee was advised to continue its studies of laws governing the practice of medicine in other states, that ultimately proper legislation may be planned and advocated. We presume there is no requirement that the proper agencies of the Association refrain from repelling attacks by quacks and cultists upon our present law and the principles upon which the law is based.

The Matter of Procurement and Assignment of Physicians was given such consideration as we were in a position to give this very large subject. There is nothing to comment upon, except that the report of the Committee brings this service up to date, and is fully explanatory.

The Membership of the Association, according to the reports of the State Secretary and the Board of Trustees, has held out rather well under the circumstances. Ignoring these reports, which must be based upon the figures of comparatively the same date each year, we may say that on May 8, the regular paid membership of the Association was 3,309. The military membership at that time was 1,114. The intern memberships, the honorary memberships and the emeritus members, numbered 66. Added together, these make a total membership of 4,489. From a numerical standpoint, this is a better membership than we had the year before or the year before that. From a financial standpoint, it is not so good, of course.

Financially, we seem also to be doing very well in spite of the war. The Board of Trustees and our auditor, gave a detailed and thoroughly explanatory account of our income and expenditures, with suitable discussion. Last year the total assets of the Association at the time the books were balanced, was $110,230, which showed a loss of $2,-114.60 over the report of the previous year, even though there was a net income to the JOURNAL of $2,583.66. As was explained at the time, these figures do not represent an

actual loss of money. It was mainly a book transaction. This year, the total assets of the Association amounted to $112,011.21, which sounds considerably better. That is what we have come to know as "total reserve," and "net worth" of the Association. The net worth, which is really our margin of finances available for any proper purpose, was $22,559.51. The present financial contingencies emphasizes the wisdom of the Trustees in accumulating this money. As has been explained heretofore, this balance has been set up by saving not more than fifty cents per capita per year during the time we have been managing the Association upon a business basis. Perhaps it is well enough to say in words that the Associaton last year saved $3,118.71.

It will be remembered that the transactions, as published in the JOURNAL, constitute a very closely edited version of the minutes of the meeting. The effort is to give the readers of the JOURNAL an easily read account of what happened. In such accountings, it is not feasible, particularly in view of the shortage of paper and the postal regulations, to publish the minutes of the meeting verbatim. The unexpurgated minutes of the meeting are in the safe of the State Secretary, and are available for inspection by any member of the Association, at any time.

Late Acquisitions In the Motion Picture Lending Library.—During the past several months, since its establishment in October, 1943, announcement has been made from time to time in these columns of the acquisition by the Library of motion pictures from various sources for lending to members and county medical societies of the Association. The Report of the Board of Trustees to the House of Delegates at Dallas, in May, on the Motion Picture Lending Library (page 67) shows that in five months, 56 films have been loaned, and have been shown to 2,363 persons which, as stated in the report, "is a fairly good record for a project launched in a period in which it is difficult for groups to find time for such study." A complete list of the films now available in the Library, with indications as to whether for lay or professional audiences, and whether silent or sound, appears in the Trustee's Report, page 68 of this number of the JOURNAL.

The purpose of this discussion is to give a brief description of two films received lately. The first of these was donated to the Library by Dr. Louis Daily of Houston. Its description follows:

Refinements in the Technique of the Radical Mastoid Operation and an Improved Flap.—A 16 mm. silent motion picture, in color, depicting the technique used by the author, Dr. Louis Daily of Houston, and a plastic flap designed by him. The following concise statements of the contents of the film were furnished by Dr. Daily:

(1) The posterior superior wall of the bony canal is removed right from the start.

(2) The attic is entered by removing its external wall close to its roof.

(3) The bony auditory canal is enlarged, widened and straightened.

(4) The incisions of the flap are made so that they allow the upper flap to slide against the roof of the bony canal.

Complete details of the operation may be found in an article by Dr. Daily in the *Southern Medical Journal*, April, 1939, pp. 402-407, carrying the same title as the film; and in another article by him in the TEXAS STATE JOURNAL OF MEDICINE, December, 1939, pp. 560-566, entitled "The Radical Mastoid Operation: Its Indications and Technique," either or both of which are available for loan in the Library of the State Medical Association.

The second film was purchased from the British Consulate at Houston. Its description follows:

Malaria.—This 16 mm. sound film, which requires forty-five minutes for showing, was purchased from the British Consulate. The film, while academic and elementary, shows in such clear detail, both graphically and photographically, the development of the malarial parasite in man and in the mosquito, that it will be interesting to both lay and professional audiences.

Part I, headed "The Parasite," depicts the world-wide distribution of malaria. Most of the scenes are in areas of the world controlled by Britain, since the film is of British origin. The invasion by the malarial organism of the red corpuscle in man with its tremendous reproduction and destruction of red blood cells is graphically shown. The sexual form, gametocyte, drawn up by the mosquito which bites the malarial patient, and the development of the sporozoites is portrayed; the latter find their way to the salivary glands of the mosquito from where they are reinjected into man by the Anopheles, which starts the cycle anew.

Part II is given to a description of the carrier, the Anopheles mosquito, and its life history. A female may lay two thousand eggs a month. The development of the larvae from the eggs and the subsequent pupae are exhibited, the latter shedding into the adult mosquito.

The methods of recognition of Anopheles by its distinguishing form, its position with regard to water surfaces, and its distinctive egg arrangement are shown. Scenes of typical breeding places, which vary enormously in accordance with the 300 or more different species of Anopheles, are displayed.

Part III deals with malarial control, which consists principally of drainage of ponds of stagnant water, spraying of margins of pools and streams with oil, power sprays of Paris Green, and the use of small fish or minnows (Gambusiae), which eat mosquito larvae. Other preventive measures include the administration of quinine to peoples in malarial areas, and those measures which man uses to prevent contact with the mosquitos, such as spraying of living quarters to destroy mosquitoes, the use of mosquito nets for travellers, and the use of ointments on the body to ward off mosquitoes.

The film is a splendid exposition of the wide distribution of malaria throughout the world, its methods of propagation, and measures of prevention and control.

We commend the use of the various films in the Library to county medical societies for their members and for health education of the public, and to physicians who are serving as instructors in hospital schools of nursing.

Further, it is desired to remind members who have clearly titled motion picture films of their own work, that they can find no better place to preserve them and to make them widely available to the medical profession of the State than in the Motion Picture Lending Library of the Association, 1404 West El Paso, Fort Worth.

The Fifth War Loan Drive will be inaugurated June 12. The Treasury Department has made special request that the physicians of the United States become active in support of the drive, and that national, state and county organizations plan and execute the campaign. President Dr. Connally has directed that the State Medical Association, through appropriate agencies, participate in the campaign, and to the limit of its ability and opportunities. He has asked County Medical Societies to appoint committees to represent the medical profession locally in the drive, and that such committees work with the prevailing groups active in the campaign locally. The Board of Councilors will serve as an official committee, representing the State Medical Association of Texas, in the drive. The Woman's Auxiliary has been asked to coöperate upon this basis.

There can be no question about the necessities of the occasion, and neither can there be any question about the value of the investment in our war bonds. The only question presenting itself to the doctor when he takes the matter under consideration, is how much he can put into the investment at this time. Most doctors are making more money than they have heretofore made, or at least it is so held by many, and it would seem the wise thing for them to do to put away a fair portion of it, and there is no better place to put it away than in the Treasury of the United States of America. It is safe there, certainly, if money can be safe anywhere in this country, and thus invested, it will pay a better rate of interest than any other gilt-edged investment pays at this time.

We abstain from the usual patriotic perorations, although we are inspired to something of the sort. We believe doctors, as a group, are among the most patriotic of our people. They are assisting our war effort to the limit, and will continue to do so, and without question. This war bond campaign is definitely a war obligation, and one which the medical profession will not neglect.

SOCIALIZED MEDICINE SHALL NOT PASS

C. S. VENABLE, M. D., F. A. C. S.
SAN ANTONIO, TEXAS

No greater expression of trust nor greater honor may be bestowed upon any man than that expression of confidence in him by his contemporaries, his associates and his friends, in their selection of him as their leader. From the moment that my home County Medical Society and my State Medical Association bestowed this honor and expression of trust upon me I became overwhelmed in the realization of the responsibilities I would assume in connection with the office. Words fail me to express my thoughts, feelings and gratitude to all who have stood by and held up my hands, so I can only say thank you from the bottom of my heart, and now attempt to give an accounting of my stewardship.

I am not an historian, and so I shall not start with the story of our old, reliable Aescalapeus and his successors, of whose accomplishments we have prated so long as the foundation of our medical heritage. I think it unfair to blame a lot of our misdoings on his unsuspecting soul, and it may be equally unfair to ascribe to his spirit many of our accomplishments; so let us start in the era of the past forty or fifty years, which interim of medicine is in the ken of many in our Association. It was in and about this period that the science of medicine became a child that must be heard, to be added to the knowledge of the art of medicine and the understanding of the psychology of medicine. Thus there was created the triumvirate of medicine, the Art, the Psychology and the Science, which hand in hand and always as one has become the tangible force known, believed in and depended upon as Americanized Medicine, which has done so much to make this a better and safer world in which to live, and which no man may put asunder without its total destruction.

In the beginning of this period the dreams of doctors seeking the causes of dread diseases and epidemics, uncontrollable by the laying on of hands, bread pills, purges or prayer, began to come true, and to one germ after another was attributed and proven the cause of this or that disease or scourge. So no longer was the germ theory a subject of discussion, but the stimulus of more worlds to conquer that has in the succeeding years of this century brought us to the full knowledge of not only the specific causes of diseases, but the manner of their approach and attack,

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with the carriers of many identified and the means and mode of entry known. With this knowledge, ways and means both of offense and defense have been put into practice, so that now we have added to Art and Psychology, through Science, sufficient knowledge and ability to prevent or control nearly all of the transmissable diseases of which our fathers stood in dread and our younger brothers and sisters died. And then through the study of the chemistry of our bodies with the aid of mechanical means of discerning and measuring physical changes making possible accurate understanding the prevention of damage and means of repair have been added to our ken. The result of all this is that the expectancy of life in America has risen in this half century from 34 to 66 years, which can only be attributed to the triumvirate of Americanized Medicine as we know it today.

I attribute the change from darkness to light to the fruition of the dreams of doctors who, in consciousness of their helplessness in times of stress gave of themselves, of their all, to find a reason why. Those dreams, those thoughts, creatures of imagination with the will to pursue, are the basis of that phase of life upon which all progress of men has been had. It is the stimulus of our being to follow a thought which must be unhampered that creation may be. It is upon such freedom of thought and action that the America created by our fathers has been founded, exists today, and is struggling to continue to hold the line against the inroads and subversive acts of autocrats and bureaucrats who, as thieves in the night, would steal our heritage from us; the America we fight for has made Americanized Medicine possible as we know it today. Never in the history of the world has such accomplishment of fact in lessened morbidity and lowered mortality been even approached.

It is this right to exert our individual energy as we may want, as we may dream, which is now being challenged. To meet this challenge, it at once becomes obvious that we can not just sit idly by, refuse to play, or ward off the blow by vituperation and speeches against the socialization of medicine; nor through maintenance of a negative force, no matter how strong, expect in the long run to prevent its occurrence. On the contrary, it has become obvious, following the action in July of the Executive Council in denying County Medical Societies and other agencies of our Association, the freedom they have enjoyed in collaboration with federal or other outside agencies, that we must find a way to meet these subversive inroads by improving our position with the public and developing a better plan to meet the demands for betterment of hospital and medical care wherever they may arise.

During the last twenty-five years of new discoveries the most exacting clinical aids have been developed, more accurate diagnoses have been made, and understanding of the many problems to which the flesh is heir has become available, so that new modes of treatment and methods of surgery have gone far beyond our knowledge and equipment at the time of the last war. Now, however, I think it is a matter of equipment, its availability on the one hand and lack of proper environment and space to put it into effect on the other, that create the challenge that must be met. If this be true, is it fair to charge to the doctor the advance made by the science of medicine, which in turn must be met by more hospital beds and better hospital facilities where the doctor must work to put into effect all these aids and improvements. Industry has built bigger and better factories, and the price of labor has advanced in proportion to output, supply and demand. Has the public been fair to the doctor in creating adequate implements and workshops in their demand for increased production at less cost? No, but, just the same, it is assumed by the people that it is our job to meet and solve the problem, be it fair or unfair, because we, in our chosen lot to relieve suffering don't know what it means to barter. This is as much the responsibility and duty of the community as the prevention of, and relief in times of stress from fire and flood, which, touching the pocketbooks of the public, are economically anticipated and willingly provided. Physicians, for their part, are now, as through all time, ready and willing to do the part for which they are trained—that part in society they have selected for their life's work, which there is not enough money in the world to buy if they do not choose to give. But all they ask today is permission to continue to give and give and give.

To this end, the Legislative Committee and Council on Medical Economics of the State Medical Association were assigned the job of finding the bottleneck, if such existed, in our delivery of hospital and medical care to the full expectancy of American Medicine as we know it. This Committee and Council have studied this subject all Winter and Spring, and will have a report for the House of Delegates this year, in which I think it will be found that they regard hospitalization as probably the greatest bottleneck, and will present a recommendation which it is believed will bring relief where it is needed, satisfy our critics, and silence the overlords who would destroy our American way of medical practice.

To reach such an objective, the combined thought of the Legislative Committee and Council on Medical Economics is that it will be proper and to the advantage of both the public and the doctor, to have the Association, through the Council on Medical Economics, carefully investigate and approve or disapprove in accordance with its judgment, proposed plans and outlines of policies as submitted by various insurance companies offering helath and accident and hospitalization insurance. The criteria will be fairness to the proposed recipient of benefits, and to the doctor and hospital rendering the service, that no misleading proposals or insinuations will be used in selling or be included in the policies, so that controversial issues may be reasonably excluded, and that the potential patients will understand that the coverage for services are in amounts commensurate with the premium paid and are intended only to be applicable to the cost of the service to be rendered. The price of a ticket determines how far we ride on the train, and an additional fee provides a place to lie down.

This proposal allows for private enterprise, to which insurance companies are entitled as well as are doctors; permits the choice of doctor and hospital, and will enable everybody who is willing to work to have hospitalization provided by themselves and for themselves and their families at a cost that will be no burden. In this way, the fear of illness is removed and the pride of every right thinking man that he can pay as he goes for service to be rendered is maintained in the American way. In plain English, laboratory facilities and sufficient hospitalization must be had to meet the just demands of the people to have the kind of medical and surgical care known today, the cost of which, even in the application of highly trained specialists, is no more than it was ten, twenty, thirty or even forty years ago. That much and more I can state from experience. The charges for an office call is the same; for a visit is the same; for medical, maternal and child care is the same, and the surgical fees are the same. It is the cost of the *delivery* of these services that must be met.

But this would not seem enough, so we have set up a special committee on Public Relations, in order that we may know where we stand in our respective communities; what the public and press really think of us, and how and where they place us in society; whether we meet their expectations professionally, or whether they would really prefer the assignment of doctors by bureaus instead of choosing them for themselves as now. In order to not only maintain a defense, but to be prepared for an offensive, it is necessary to know the answers to these and many other pertinent questions, which could not be found merely from a group of speakers addressing clubs and various organizations. In order to met this situation and build our fences a Counselor on Public Relations was employed, under whose direction the Committee has been vastly enlarged and has now begun to function. The first step is to seek the full coöperation of each and every member of the Association, upon which coöperation will depend whether we win or lose. The challenge is to develop a better understanding between the public and the doctor. A statewide program has been started that will be expanded. This program is two-fold: to work with the profession itself; and to work with the public in creating closer and more cordial public relations.

Surveys will be made among both the doctors and the lay public, and occasionally among special groups. Only from definite knowledge can the thoughts and positions of varying elements of society be analyzed, their differences understood, and their relations improved. Reason based upon knowledge creates lasting effect. The first of these surveys, one conducted by mail to the medical profession, is now under way and the results will soon be made available, provided our members do their part in response. The medical profession itself will be kept informed as to what is happening and being done, through a semi-monthly news letter. These will be concise and factual reports and will present the trend of national and state policies which concern medicine.

Many different ways will be employed to reach the public. Material will be designed to reach present patients; government leaders and legislators; the press and radio; labor; the clergy; teachers and students; farmers, and many other groups.

The Speakers Bureau will be expanded. In many instances, speakers from other walks of life will be used to carry the story and nurture the fellowship we seek.

The Public Relations Office will be organized to be ever alert to the needs of medicine in Texas, and have available plans to meet adverse situations wherever they may arise.

It is easy to see the trend of the control the Washington bureaucrats would try to have over our lives through subversive propaganda and their attempts to improve their positions in furtherance of un-American bureaucratic activities. The idea and value of such a comprehensive program is at once apparent if we are to continue to combat these subversive powers that would undo the way of life of every American. We must know in Texas how many people believe in and de-

pend upon their doctors. But these answers will go further and prove that the faith of the public in their doctors is the binding force of American Medicine, and that without that faith regimentation through channels of the Science of Medicine alone can not succeed in America. It has not been successful even in countries born to monarchy, autocracy and consequent regimentation of life.

This diabolical scheme of increased grandeur to the great and further abjection in slavery to the slaves, was first set up by Bismark in 1888, under whose throne of influence and at whose feet one Wagner (S. 1161 in the gallery of un-American activities) sat. The same plan of Social Security was adopted in Austria in 1893. Up to that time Germany and Austria were the meccas for us all, as they led the world in medical progress and science; but under such regimentation and attempted direction of thought and throttling of ambition to the oblivion of imagination, these countries year by year lost their high positions in the world of science and progress. Unfortunately for medicine and science and progress, the labor powers found these eggs of social security and hatched them in Great Britain as the Panel System. The first head of organized labor in America, Gompers, said, "Compulsory social insurance is in its essence undemocratic and it cannot remove or prevent poverty," which compulsory social insurance has now run amuck in Europe, sowing its seeds of destruction in the wake of this miracle ship upon a painted ocean, where they have even taken away the right to worship in their effort to destroy Christianity with all else.

It is my belief that by facing facts and conditions with an honest effort of understanding and a sincere attempt to make improvements and corrections, our fellow citizens in our communities, our states and our country, will with us turn upon those who, from selfish motives and by bureaucratic action, would strip from us our birthright and, instead, will hold up our hands as we hold up our heads to the ultimate destruction of such faithless subversiveness that would destroy the America of our birth.

And so I say to you in the words of Marshall Joffre, "*Il ne passe pas*"—they shall not pass.

Treatment of the pregnant woman with tuberculosis by the most modern methods of combating the disease together with equally modern prenatal care apparently offers her as good a chance for recovery from her tuberculosis as though pregnancy did not exist.—E. S. Mariette, M. D. et al. Trans. Nat. Tbc. Assn., 1941.

PROGRESS IN CANCER RESEARCH

I. Animal Experimentation in the Solution of the Cancer Problems

W. A. SELLE, M. A., Ph.D.

(Professor of Physiology, University of Texas, School of Medicine, Galveston; and Consultant, Department of Pathology, M. D. Anderson Hospital for Cancer Research, Houston.)

GALVESTON, TEXAS

Cancer is a disease so variable in its manifestations, development, course and duration, and often so difficult of recognition and differentiation, that study of its many fundamental problems on the basis of human material alone has been found to be unsatisfactory. However, animal experimentation in cancer research is a comparatively recent undertaking.

Until the early part of this century cancer research consisted almost entirely of descriptive observations of tumors in man. Progress was slow, enthusiasm was low. Pathologists had established the relation of cancer tissue to normal tissue and had provided a basis for a histologic classification of tumors which, whether profitable or not, permitted elaborate division into groups and subgroups. Bacteriologists had lost their interest in settling the matter of the nature and cause of cancer, as they had so triumphantly done with many other diseases, and in disillusionment were willing to accept the view of pathologists that this disease is not infectious. Chemists, analyzing neoplastic tissues without suitable control material, found their attempts to establish something characteristic of such tissues to be futile and virtually abandoned further efforts of this kind.

Renewed hope was given to investigators when, through the study of animal tumors, the work was put upon an experimental basis. This became possible following the discovery that malignant growths could be produced at will in mice, rats and rabbits. It was then that Claude Bernard's plea for planned experimentation was applied to cancer research. On the basis of an experimental science and with the possibility of adequate control, many fundamental biological facts were uncovered during the subsequent twenty or thirty years.

The study of cancer by experimental methods has developed along three major lines of endeavor. The first of these and the one which revived dying enthusiasm was the demonstration by Loeb and others that tumors can be readily transplanted from one animal to another within the same species, that the success of homotransplants is dependent on the degree of kinship of the donor to the recipient and that heterotransplants invariably fail. The second very productive line of investigation concerned the inheritance of spontaneous tumors. The third

and undoubtedly the most important line of endeavor followed the discovery that primary spontaneous cancer, not dissimilar to that of man, arises in laboratory animals in consequence of the injection of suitable chemical agents.

Since modern cancer research is largely based upon these three types of neoplasms—transplanted, spontaneous and induced—the nature of such tumors is important in the consideration of the cause, control, diagnosis and treatment of human cancer. A pertinent question, therefore, is: What is the relation of the disease called cancer of animals to that of man? It is now evident that animal tumors are similar to comparable spontaneous tumors of man and what is learned from them can, in general, be applied to human neoplasms.

As a result of the establishment of a large number of new facts, it has become obvious that the cancer problem is too complex to expect a single approach to yield the complete answer. The rapid accumulation of knowledge demands that an effort be made to correlate each advance in order that its significance may be properly appraised. It will not be presumptuous, therefore, if one attempts to interpret some of the fundamental work available. In order to limit the scope of this contemplated review, it is necessary to restrict the discussion to fully confirmed facts.

THE NATURE OF MALIGNANCY AS REVEALED FROM TRANSPLANTABLE TUMORS

The demonstration of the transplantability of animal tumors put new vigor into waning cancer research, for it was hoped that the resultant information would throw light on the mechanism of cancer susceptibility and resistance in man—a hope never realized. Of great importance, however, was the finding that the intimate contact between the host's tissue and that of growing tumor, for which the host supplies blood vessels and supporting stroma, does not lead to a state of malignancy in the tissues of the inoculated animal. Evidence so far has failed to reveal in mammals the presence of an infectious agent capable of transferring the malignant character from one cell to another. While much of significance relating to the biology of the cancer cell has come from the study of the transplantable tumor, a committee appointed by the Surgeon General of the United States Public Health Service has reported that "attempts to establish fundamental differences between normal and malignant cells of the same tissue have failed to bring out any striking variation in the chemical make up, enzyme content, metabolism or structure." Many claims contrary to this statement have been based on improperly controlled experiments—a fault common in many fields and particularly so in cancer. Murphy points out that it is this problem of maintaining proper controls which is responsible for many controversial claims with which the subject abounds. Control material not only implies cells of the same type as that from which the cancer develops but also actively growing tissue.

The well established observation that an animal in which a transplanted tumor has grown and later receded becomes resistant or immune to a second transplant was considered at first to be of great significance, and it was thought that such information would lead to a successful method of immunization against cancer in man. Later, however, it was found that grafts of neither normal nor tumorous tissue will protect an animal against spontaneous tumors or against those induced by carcinogenic agents. Apparently, what was regarded as acquired resistance is not resistance against cancer as a disease but against the introduction of cells from another animal of slightly different genetic make-up.

That the inoculated tumor is fundamentally different from spontaneous tumors is further seen by the fact that successfully inoculated growths often disappear spontaneously, and that protection may be furnished by various procedures not observed for induced or spontaneous tumors. Because of these and other outstanding differences, the significance of transplantable tumors has been greatly minimized. Most investigators now feel that work on this type of experimental growth is a matter of academic interest, that the information it has provided is of value chiefly in the study of tissue grafting and that it has contributed relatively little toward an understanding of the nature of malignancy.

INHERITANCE OF A PREDISPOSITION TO CANCER

All disease processes are influenced by two significant factors: (1) the susceptibility of the tissues (heredity), and (2) the external inciting agents or conditions. Heredity, unquestionably, plays a most significant role in tumor formation, as was first reported by Leo Loeb in 1904, and subsequently by Tyzzer and Murray. Maude Slye, a well known pioneer in this field, proved that the inbreeding of tumor-bearing mice greatly increases the incidence of spontaneous tumors, and that immunity to cancer in mice is inherited. The problem, however, is far from simple, for it has become evident that in some types of cancer the genetic factor plays a primary role, in others a secondary one. Advance-

ment in this field of investigation is, nevertheless, rapid and it is quite probable that the many current controversies over the number of mendelian factors involved in the inherited tendency for cancer will soon be settled.

Perhaps the most important contribution of animal experimentation to this phase of the cancer problem is the demonstration that the inherited tendency or predisposition to develop cancer is not a general characteristic but is confined to a definite organ or tissue. An animal may be susceptible to one type of tumor and insusceptible to another. Thus, one strain of highly inbred mice may inherit the tendency for mammary cancer, another lung tumors, a third leukemia, a fourth liver tumors, *et cetera*. There is evidence that this predisposition for special types of cancer holds for man as well. Most convincing evidence comes from identical twins. It has been found that when cancer occurs in one member of such a pair, it occurs in the other member in more than 50 per cent of the instances recorded. Cancer not only frequently develops in both twins, but it develops at about the same time in the same organ, and is of the same histologic type. The literature is replete with reference to cancer families, yet the important finding, as pointed out by Weller, Macklin and others, is that while the cancer rate of a given large family may not be much higher than the rate for the community as a whole, such families show a frequency for a specific type of tumor which is many times higher than that for the community. Spencer points out that the breast, colon, uterus and prostate have a high family incidence for cancer, but that other organs of the same group of victims do not. There is no evidence, therefore, for a common genetic basis for all types of cancer.

Mention should be made of the recent observations of Wood and Darling, at Stanford University, who studied four generations of a cancer family manifesting multiple occurrence of bilateral carcinoma of the breast; all three female offspring of the third generation developed cancer of both breasts at an early age; one member of the fourth generation has now developed bilateral breast cancer at the age of 20. The interesting question arises: What advice, if any, should be given the other female siblings of the fourth generation?

While primary lung cancer of mice is inherited as a dominant character, the predisposition toward breast cancer is influenced more by the female than male; this type of transmission can not therefore be due solely to genetic factors. An inciting factor in the milk has been found to modify or augment the inherited tendency for this type of cancer. If newly born female mice from a high tumor strain are nursed by a mother of low tumor strain, the tumor incidence in the foster-nursed animals is greatly decreased. Foster nursing of females from a low tumor strain by a mother of high tumor strain, increases markedly the tumor incidence in the fostered mice. Recent work by Bittner suggests that the development of mammary tumors of mice involves three equally important factors: (1) an inherited susceptibility for spontaneous tumors, (2) an inherited estrogenic influence, and (3) a milk factor (which is now believed to be a virus). Although the milk factor has been established only for mammary cancer it is possible that other malignant tendencies such as the leukemias, which tend to be transmitted more by the female than the male, are influenced by factors secondary to or dependent on some other inherited condition.

Regardless of the nature of the inherited or predisposing factors, which are far too variable to permit generalization, the manifestations are the same. It would appear that some factor or condition, such as an altered enzyme system, is required to bring out the malignant potentiality. An alteration in the normal cell system is probably the result of chronic specific irritants.

CANCER INDUCING AGENTS

The search for the particular component of coal tar responsible for cancer of the scrotum of chimney sweeps led to the discovery in 1933 of the potent carcinogenic hydrocarbon, 1, 2, 5, 6 dibenzanthracene. Since then more than 250 synthetic chemicals possessing carcinogenic properties have been uncovered. Among these is methylcholanthrene which is of special interest because it can be derived from bile salts and because of its structural similarity to the sex hormones, vitamin D and other naturally occurring physiologically active compounds. It has been extremely valuable for the experimental production of almost every type of tumor found in man. Amounts as small as one-tenth of a milligram produce malignant growths at the site of injection or in distant organs. A single application of methylcholanthrene to the skin leads to carcinomas and, as might be expected, the size of the skin area exposed to the carcinogen determines the carcinogenic response.

The study of these chemical agents has developed rapidly into the most active field of cancer research. Extensive work has proven that there is no particular grouping of radicals common to these chemicals which would be responsible for their carcinogenic property. It is now well established that this property is shared by compounds unrelated

to the original hydrocarbons and by simple chemicals, such as glucose, zinc chloride, *et cetera*. That these chemicals have nothing in common among themselves, except the ultimate effects they have on tissues, is further indicated by the carcinogenic properties of various physical agents. Of the latter, heat, x-rays, radium, and ultraviolet light, have proven unusually effective and specific. Sunlight cancer, which is particularly significant in our own state, is clearly traceable to actinic rays; various workers have produced malignant growths in rats and mice by exposure to ultraviolet light from a mercury arc.

Although the discovery of the various carcinogens has made possible quantitative production of tumors under controlled conditions, it has not yet clarified the mechanism responsible for the change from the normal to the malignant state. Nevertheless, an impressive amount of significant information has accumulated. Lack of specificity with regard to the type of cell involved deserves comment. When subjected to a powerful agent such as methylcholanthrene, few tissues escape cancerization. Malignancies of the brain, skin, striated and unstriated muscles, subcutaneous tissue, lung, intestinal mucosa, *et cetera*, are all produced. The carcinogens, however, are effective only after a relatively long latent period, which itself is influenced by the type, dose and method of administration of the chemical agent, and by the species and strain of animal employed. Applied to the skin, the carcinogens lead to epithelial destruction which is similar in many respects to that produced by burning. Traumatization is followed by excessive regeneration and cancer develops subsequently in the center of this inordinantly regenerated epithelium.

The conversion of normal into malignant cells is apparently associated with changes too intricate and delusive to be analyzed by present histologic technique. Without becoming significantly altered morphologically, certain cells in the midst of chronically deranged tissues develop the capacity for uncontrolled division. Little more can be said about the nature of the formal genesis other than to stress the subtlety of the process and the failure of cytologic technique to differentiate malignant cells from actively growing cells of similar origin. However, the microscope can hardly be expected to reveal all the biological changes occurring in living tissues. Because of this the present trend of cancer research is away from the purely morphological and toward the physiological and biochemical; for in dealing with carcinogenesis we are concerned first and foremost with basic biological problems.

The female hormone, oestrin, is carcinogenic under certain conditions. Other sex hormones are reported to retard tumor formation and even inhibit some types of well established tumors. Although oestrin exerts its carcinogenic action primarily on the genital organs, the hormone affects tissues on which it appears to exert no specific physiological action. In a recent review, Allen has pointed out that long continued treatment of mice with the estrogenic hormones produces tumors of the cervix, breast, pituitary and adrenal glands, bone, bone-marrow and lymphoid tissue. While other laboratory animals are generally much less responsive to oestrin than mice, guinea pigs develop uterine and abdominal fibroids with great regularity. Paletta and Max have found that estradiol benzoate painted on the skin of mice enhances the formation of cutaneous tumors by methylcholanthrene. Other workers have similarly shown that subcutaneous tumors are more readily produced when oestrin is injected during the induction period. It has not been demonstrated, however, that this hormone leads to tumor formation in man or other primates. In fact, Engle and associates have administered enormous amounts (575-825 mg.) of *a* estradiol to old female monkeys for more than two years without obtaining evidence of tumor formation; nevertheless, pronounced glandular hyperplasia of the endometrium and extensive cell metaplasia of the endocervix were observed. A number of workers (Gardner and associates, Lipschutz and associates, and Heinman) have reported that progesterone and testosterone exert an inhibitory influence on certain experimental tumors, particularly on lymphomas, fibroids and mammary carcinomas. These hormones have been tried clinically, but reports are conflicting. It is still too early, perhaps, to evaluate their therapeutic value.

An account of carcinogenic agents can not be complete without mentioning the relatively recent demonstration that certain azo dyes, known as butter yellow, produce liver cancer in rats and mice by oral administration. Indeed, this finding has made available a new tool for the study of dietary influences on carcinogensis within a specific abdominal organ. When given in excess, yeast, riboflavin, pyridoxine and certain amino acids greatly reduce the incidence and induction period of hepatomas resulting from p-dimethylaminoazobenzene.

Since normal function depends on a continuous supply of chemicals for the liberation of energy and the synthesis of nutrients, vitamins, enzymes and hormones, it is logical to consider the composition of the diet as a possible modifying factor for carcinogenesis

in general. Despite many statements to the contrary, a number of outstanding groups of workers have recently reported that the development of a variety of tumors can be influenced by dietary factors. Brief mention should be made of the careful work of the National Cancer Institute, where it has been shown that formation of tumors of the liver and breast is markedly retarded by diets low in cystine. Workers at the University of Minnesota have found that the incidence of mammary tumors of mice is greatly reduced by diets low in calories but otherwise adequate, and a group at the University of Wisconsin have reported that high fat diets enhance skin tumors produced by methylcholanthrene painting.

The knowledge of vitamins has not yet progressed to a point which justifies a definite statement regarding their relation to cancer. Observers in general have failed to find any specific effect on either the development or growth from a deficiency of most vitamins. Certain members of the B-complex, however, have recently been shown to exert an influence on carcinogenesis. While the exact role of these is being vigorously debated, the following has been established: (1) riboflavin deficiency in rats enhances hepatoma formation by the azo dyes but inhibits the development of spontaneous mammary tumors; (2) pyridoxine is essential for growth of all types of experimental tumors. While the wide variation in the reaction of different animal species to vitamins may render it unsafe to transfer these observations to man, this promising field obviously deserves further investigation.

Space does not permit here an extension of the ramifications of cancer research based on animal experimentation. Much that appears to be significant is being added to the literature from the fields of biochemistry, chemotherapy and radiation. There is reason to believe that these various approaches will be fruitful if given sufficient time.

CONCLUSIONS

In conclusion, an attempt has been made to point out certain aspects of cancer research which have grown out of the use of three types of experimental tumors. Emphasis has been placed on the study of tumors induced by chemical and physical agents since hope of preventing human cancer, whether it be spontaneous or occupational induced, must rest on such investigations. The difficulty of carrying out such studies on human material is indicated.

A host of chemical, physical and biological agents are known to be involved in the casual genesis of cancer. Despite the great mass of information concerning these, the exact mechanism of the formal genesis has not been revealed. A physiological explanation for the altered behavior of the cancer cell is still wanted. It would seem that a more complete understanding of this phase is necessary before preventive measures can be expected to develop; and, unless a therapeutic agent is discovered entirely by chance, it is probable that significant advancement in the methods of treatment will come only with a fuller knowledge of the mechanism responsible for unrestricted growth. Although progress may be slow for many years, the intelligent, comprehensive and coöperative efforts now being applied to the cancer problems will surely lead to their complete solution.

PUBLIC HEALTH—PAST, PRESENT, AND FUTURE

W. B. RUSS, M. D., F. A. C. S.
SAN ANTONIO, TEXAS

It is an honor to be asked to appear before the Health Officers and Health Unit Directors of Texas.

While serving as Regional Medical Officer of the Office of Civilian Defense, I had the pleasure of working in close coöperation with the State Health Department under the management of our distinguished State Health Officer, Dr. George W. Cox, and his able and efficient staff. I do not believe that any other State Health Department in the entire country has given such whole-hearted and intelligent support to the war effort, and, particularly, to the Emergency Medical Services organized by the Office of Civilian Defense in coöperation with the U. S. Public Health Service, Army, Navy, Red Cross, and supported by all professional and related groups engaged in war work of a medical nature. Too much praise can not be given to the well-organized and efficiently administered Sanitary Division under the direction of Mr. V. M. Ehlers. The people of Texas are fortunate to have such an outstanding Sanitary Engineer and leader of men at this critical time.

For more than forty years it has been my privilege to sit on the sidelines and observe the behavior of people with relation to their health problems. At the turn of the century the Southwest paid no attention to "Safety First" and gave little thought to security that the individual could not provide for himself. There were no health laws worth mentioning and no sanitary code, except the old Bible book of Leviticus, which is just as well, because in those days not even the Ten Commandments were taken seriously by many of the most influential citizens, some of whom,

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according to Owen White, preferred open crime, openly arrived at, to the concealed and often unconscious sins of the good and the great. These people could not be regimented even in the interest of their own or the public health. For them there were no health problems, except during epidemics, and their interest ended with the raising of quarantine.

At about this time, the late distinguished Dr. Frank Paschal of San Antonio, pioneered an effort to educate all of the people, and I had the privilege of serving as a volunteer under him. He had no support from the general public and least of all from leading business and professional men. Of course, he had none from the politicians. He was denounced as an alarmist and a man bent upon destroying the good name of his home city and state. I thoroughly enjoyed the experience of working under such a leader, crusading in a great cause, who, in and out of season, preached the doctrine that public health is the business of all the people and not merely the concern of the medical profession, and who, again and again, denounced the misuse of the broad powers, under health laws, by men more interested in vote control than in disease control. In 1901, we attempted to make a survey of the tuberculosis death rate in Bexar County for the years 1870, 1880, 1890 and 1900, using mortuary statistics and the census as guides. When we prepared a report, showing that the tuberculosis death rate from 1870 to 1900 had increased over 600 per cent, and that the increase was chiefly in the native population, we were denounced as trouble-makers. The report was not accepted for publication anywhere, because it seemed to reflect upon the good name of San Antonio and Texas.

Over the years there has been a gradual awakening on the part of the general public, and while it is true that there has been a great improvement in public health administration, federal, state and local, it is obvious that even now, far too many of the people who should be most concerned with public health have remained indifferent; I might say, apathetic in all matters that have to do with their own or community health. Today, in city slum areas and in most rural communities the people who are responsible for most of the health hazards seem to be utterly ignorant, if not actually superstitious, with regard to conditions that are responsible for the rather bad showing that our young men have made in their physical examinations for military service. This state of affairs is definitely not due to lack of efficiency on the part of federal, state or local health administration, nor to any lack of enthusiasm and earnest effort on the part of the many other agencies concerned with health problems.

The community can not deal successfully with poverty, crime or disease unless the individuals who make up the community have the intelligence to understand and the willingness to accept responsibility for dealing with community problems. The medical profession is no more responsible for control of disease than are lawyers for the control of crime, nor business men for poverty, nor teachers for ignorance, nor the ministry for sin. Every man, woman and child has a definite responsibility to contribute his or her part in fighting these destroyers. If the individual citizen would examine himself instead of his brother, and undertake to reform himself and his family rather than his neighbors, most of our community problems would promptly disappear and many of our politicians would develop into statesmen. No agency of the Government—federal, state, or local—and no community organization, not even the medical societies, nor the churches, can impose reforms upon people who are not morally and spiritually willing and able to coöperate in meeting community problems by improving themselves. A country is only as good as the people who compose it.

We should not be too much discouraged by the apparent lack of interest in their own welfare, manifested by the so-called submerged people. Reform, and education that brings reform, is a slow and painful process, a matter of evolution. People can not be improved mentally, morally or physically by an effort to impose reforms upon them by laws or by the usual educational programs.

The remedy in 1900, the remedy now, and the remedy always will be *education*, followed by intelligent coöperation of all elements in society. But the word *education* needs to be defined. People who consume practically all of the charity tax dollar and furnish most of the criminals and the sick, can not be reached by means now employed. Some way must be found to impress them with the idea that *they are important*, that they can really be of use. They should be encouraged to develop self-respect and self-confidence and made to understand that their handicaps in no way disqualify them from coöperating in all community efforts in the cause of public health. Once a man, however forgotten, can be made to realize that in spite of his handicaps, he can be useful and respected by his children and his neighbors, he will devote himself, body and soul, to following the light that this hope has created.

Creature comforts, like housing, food and medical care, emphasis upon rights and privileges, and talk about liberty and the American way of life as applied to the man without confidence in himself is silly and harmful. No man is entitled to liberty and the rights

of citizenship unless he is willing and able to assume the responsibilities that go with liberty. No charity that merely hands out material things while failing to offer hope and nourish self-respect is really charity. We can not hope for a better world, nor a healthier world, until the individual citizens who make up society, become self-reliant and accept responsibility as citizens of a free and coöperative society.

In dealing with the people who are apparently ignorant and apathetic with regard to all of their responsibilities as citizens and particularly those who show a lack of interest in the most elementary problems in sanitation, we should keep in mind that every man, woman and child, whether of high or low degree, will accept responsibility and work with enthusiasm when he feels that he is *appreciated;* that he is *worthwhile;* that in spite of handicaps, he can really contribute something to the community welfare. Education, in its broadest sense, should always begin with a determined and well directed effort to help the backward citizen develop self-respect, self-confidence, and self-reliance. When this foundation is laid, the barrier that separates our people into classes will be broken down, and out of the slums and the desolate rural areas will develop real leaders in community projects. Class warfare will grow less when all of our people can be trained and induced to work together for the common good in prevention of disease, crime and poverty. Men and women in public health service have a great opportunity to reach the underprivileged and handicapped people, and to help them develop a civic consciousness and to build up themselves spiritually, morally and materially under your leadership and with guidance and direction by the really great scientists and leaders in the U. S. Public Health Service, and with cooperation by outstanding civilians who are now accepting a share of responsibility for health administration in their communities. I am sure that we can see the dawning of a better day.

The stress of war, the necessity of improvising to meet emergencies, the friendliness and neighborliness that result from working together in a common cause in time of stress, will furnish leaders in public health with an opportunity to point the way and furnish those of us who are not public health officers and not really leaders to support you in and out of season.

There is no method and no treatment that will, with certainty, increase the length and speed of growth of hair, *Hygeia, The Health Magazine,* for May 1, advises in answer to a query.

MEDICAL EDUCATION AND THE POSTWAR WORLD

MORRIS FISHBEIN, M. D.

(Editor, *The Journal of the American Medical Association* and *Hygeia,* the Health Magazine)

CHICAGO, ILLINOIS

Estimates indicate that as many as 15,000 or 20,000 of the young men now in medical service in the armed forces have gone into such service directly from an abbreviated internship or an unfinished residency. One of the greatest problems of American medicine in the postwar world is going to be the provision of adequate facilities and opportunities for these young men to complete their medical education. Already a committee, formed under the leadership of the president of the American Medical Association and including representatives of most of the leading medical organizations in the United States, has begun a survey to determine what can be done to meet this need. Questionnaires are being sent to every physician now in the armed forces requesting him to indicate exactly how much additional education he will require when he comes home. A preliminary survey has indicated that some of these men want to go back to the very hospitals in which they served. In fact, this is almost the rule. They wish to secure additional experience under the tutelage of recognized teachers. Many of them wish to obtain opportunities for research to carry out programs of investigation on which their minds have been set. Indeed, many men who have been in practice five or even ten years before going into the armed forces now wish an opportunity for an additional three weeks, three months or three years of graduate study with a view to making themselves especially competent in some particular phase of medical practice. An opthalmologist, for instance, wants special work in ophthalmic surgery; a general surgeon wishes extra work on surgery of the chest; many a man who has done general practice wishes to devote himself henceforth to the special programs of men in industry.

The opportunity thus presented should not be overlooked by every institution devoted to medical education in the United States. By this I mean, of course, not only the medical colleges of the nation but also the teaching hospitals. Upon the teaching hospitals particularly rests the burden of supplying these physicians with the experience and training that they require.

Abstract of Commencement Address delivered at the First Graduation Exercises of Southwestern Medical College, Dallas, Texas, March 20, 1944.

THE ACCELERATED CURRICULUM

In order to meet the needs of the armed forces, medical education has undergone a veritable evolution. Not only has the premedical curriculum been telescoped but also the actual training in the medical school itself. Incidentally we call it the "accelerated curriculum" and the British call it the "contracted curriculum." It seems to me that these phrases carry the characteristics with which the two nations confront any emergency. The American tends to speed up and drive through while the Briton tends to tighten his belt and sit by.

For the period following the medical school there has been developed a procedure known as the "9-9-9 program" developed by the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, in which an internship that used to be from one and a half to two years has been condensed to nine months and in which a residency that used to be three years has been condensed to nine months of residency for one-third of the interns with an additional nine months for half of those who have had the first nine months.

It has become necessary, therefore, for medical educators to indicate to hospitals and to medical schools the reasons that this period should be considered wholly an educational period and not primarily one in which hospitals, short of necessary personnel, utilize the intern and the resident to carry out routine duties in attention to the sick. Medical education, already abbreviated to the point where it requires well nigh a master mind to accomplish what needs to be accomplished in a short time, is not benefited when a part of that time is devoted to onerous, fatiguing or exhausting duties which leave little or no time for personal instruction of the young man by the attending physician, no time for reading, no time for study, no time for observation.

THE ADVANCEMENT OF MEDICAL SCIENCE

The opportunity for American medicine in the postwar period, granted continued freedom of initiative and enterprise, is the greatest that has ever confronted any group in the history of the world. The decade preceding the war and the war decade itself have been so full of things that are new and important in medical practice that the whole practice of medicine needs to be restudied and revived. By the use of preventive methods, by the application of the sulfa drugs, and by the injection of penicillin, for example, the whole nature of many diseases formerly fatal in a large percentages of cases has changed. Gonorrhea, syphilis, pneumonia, typhus, malaria, influenza and many of the other plagues that used to devastate mankind, are being brought under control. But the picture of disease when treated with these remedies is quite different from the picture of disease without the application of these methods. This constitutes, obviously, a great burden on the medical profession beyond anything that has heretofore confronted it. Particularly the physiologist and the pathologist need to be concerned by these changes. The materials taken from the body of those who are sick and the tissues of the body seen at postmortem following treatment with modern methods are quite different from what they used to be.

Into the picture of the care of the sick also during the past twenty years has come all of the newer knowledge of the vitamins, the hormones and the effects of physical methods of treatment. Hardly a week passes in which some new contribution is not made to our knowledge of vitamins and their effects on the human body. Indeed all the uses of drugs in the past need to be restudied in the light of some of these effects. Just recently there has become available the knowledge that large doses of salicylates have a definite effect in lowering the prothrombin necessary for coagulation of the blood. The injection of vitamin K before the giving of salicylates prevents this effect. After the effect has occurred the use of vitamin K is without avail. It will require much more research than has now been done to understand this.

Among the greatest of the discoveries in recent years has been the use of the sex hormones to modify changes that go on in the human body. The removal of the sex gland in the male is, in many instances, apparently of great benefit in the control of cancer of the prostate gland. In other cases it seems to be unavailing. We need to know why this difference exists. It is known from experiments on animals that some of the hormones used improperly or in the wrong kind of cases may actually stimulate the growth of cancer. Evidence has been offered that the female sex hormones may prevent certain changes in the male and *vice versa*. The complexity of this picture offers a challenge to the investigator everywhere.

When we come to a consideration of the effects of physical forces on the human body we stand at the very threshhold of a field that has hardly been touched, even though mentioned by Hippocrates more than 2000 years ago. Consider, for instance, the use of the cyclotron to confer radio activity on drugs which have the special value of locating

in certain tissues of the body. For instance, iodine tends to locate in the thyroid gland, phosphorus to circulate through the body and to get into the liver and the bones. Such radio active isotopes are now being used to treat malignant changes occurring in these tissues. Here, again, is a field hardly touched. Fortunately, however, farsighted American leaders in medical education, in physical therapy and in philanthropy are planning a direct approach to these problems. The approach that they are making is a further testimony to what we can accomplish in this country if individual initiative and free enterprise are not too greatly devastated by attempts at central or federal control.

THE PRACTICE OF MEDICINE

It would be folly to insist that American medicine has reached the highest point that it can achieve either in science or the distribution of medical service. The reports of the Social Security Board dealing with the problems of medical care are an indication of the very stagnation that centralized control would bring into medical service. More than ten years have elapsed since this group was first established to study medical care in the United States and during that time they have come forward with only one proposal for the distribution of medical care—a nation-wide system of compulsory health insurance. In that same period of time the medical profession and American industry and insurance have brought forward a variety of technics to aid those in the lower income groups to achieve a high quality of medical care by prepayment plans in which the individual was always the master of his funds and of his fate. Today these plans grow by leaps and bounds. Fortunately the American public has itself indicated that the vast majority of people prefer such plans to any centralized federal system. In the recognition by the people of the desires and standing of American medicine and of the ways in which medicine can be helpful to them, the leaders of American medicine take great pride. We are going forward if only government will realize that the American character does best when not too greatly restrained.

Clearly, the programs for rehabilitating the tuberculous are in their initial stages of development. Many successful but isolated rehabilitation projects, for a decade or more, have been acting as beacons lighting up the course along which a national effort in this sphere may proceed. A comprehensive and coordinated national rehabilitation program is required. Without it, the effectiveness of mass case-finding campaigns and of subsequent sanatorium treatment is, in considerable measure, vitiated, and the disease remains a needlessly large drain upon the resources of the nation.—Louis E. Siltzbach, M. D.

NEW PLANS REGARDING MEDICAL CARE FOR THE PUBLIC

J. T. RICHARDSON, Ph.D.
(Associate Professor of Sociology, Stephen F. Austin State Teachers College)
NACOGDOCHES, TEXAS

We are living in a period characterized by many rapid changes, and a large number of people are trying to secure some kind of a preview as to what *Tomorrow's World* will be. In the light of these events one would expect the medical profession to modify certain of its former policies relative to medical care. Laymen are interested in the progress of medical care because the health of a nation's people is a matter of great importance. Many reports, in the recent past, have shown that our system of medical attention, especially for the low-income groups can be improved. Included among such surveys are the following: "The Committee on the Costs of Medical Care," 1932, "The Committee on Economic Security," 1934, "The National Health Survey," 1936, "The American Foundation Report," 1937, and "The National Health Conference," 1938. For several years the medical profession has been endeavoring to find solutions for some of the problems presented by the foregoing reports. At the same time the medical profession realized that services rendered under new plans needed to be competent and maintained on a high plane of medical ethics. That aim was achieved, at least in part, when the American Hospital Association, the American College of Surgeons, the American Medical Association, and the many state and local medical societies recognized the merits of prepaid medical care for groups with limited incomes. Such recognition is evidence that the medical profession realized the dangers of socialized medicine and is taking definite steps to avoid it.

In considering medical care plans one should keep in mind the three groups whose interest in the problem is most vital: namely, the public, the medical profession, and the government. Each of these groups must coöperate and accept its respective responsibilities in solving the problem of adequate medical care.

There are several new prepaid medical care plans, open to the public, in operation at the present time in different sections of the United States. Among these can be mentioned the California Physicians' Service, Medical Service Plans of Michigan and Massachusetts, Group Health Association in Washington, D. C., the Western New York Medical Plan in Buffalo, and the Dallas County Medical Plan in Texas. Others are

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Radio Address broadcast over Radio Station K. W. K. H., Shreveport, La., March 21, 1944.

being organized as fast as conditions will permit. All of these plans were originated by and are under the control of the medical profession. Hence, they should not be confused with state or socialized medicine in any way. These prepaid plans for medical care were devised to meet definite social and economic problems, in their respective areas, and they have been successful in doing so. Since their scope and usefulness will be expanded without doubt in *Tomorrow's World*, a composite description of their basic working features should prove to be of some value at this time.

Legal sanctions for prepaid medical care plans can be found in several divisions of American law. In some of the states such plans operate under the terms of special enabling acts passed by the legislature; in other states they are given legal status through the insurance laws; and in some jurisdictions they operate under the corporate laws in much the same manner as any other business concern.

The administration of a prepaid medical care plan is simple. Control is vested in a governing board of directors composed of six or more members. This board contains representatives from the medical profession, hospital officials, and the general public. Central offices and clerical personnel are maintained for the efficient management of the unit.

All recognized members of the medical profession may participate in the average plan of this type. The roster of the county medical society frequently is used in determining recognized members of the profession. In a few of the organizations, staff members are selected by the medical director with the advice of other members of the staff. These physicians constitute a panel and their patients call them as in regular practice. This retains the traditional relationship that has always existed between a physician and his patient—a tradition highly prized by both parties. Both the physician and the subscriber participate in prepaid medical care plans on a voluntary basis. The element of coercion is not present.

Subscribers in such plans usually are received on a group arrangement. The minimum number for acceptance varies; however, in one plan it was twenty. A certain percentage of the total number of employees of a given concern are required to enroll in order to spread the risk as much as possible in keeping with recognized insurance principles. Some of the plans also restrict membership to those workers whose incomes do not exceed a certain sum—ordinarily $2,000 per year for single persons with a slightly higher allowance for married couples. There are also provisions in some of the prepaid plans for those individuals whose incomes exceed the maximum amount established by the plan. These persons select their physician, as do all other groups, and he in turn, is paid on a unit basis in keeping with a prearranged fee schedule. The charges of the physician may be greater, however, than the schedule of fees permit; and in this case the physician collects the balance directly from the patient. Membership fees in these new plans for medical care also vary. Even so, a range from $1.50 and $2.50 a month for each subscriber would be typical of most units. Dependents can be included by the payment of a small additional fee.

The benefits received by the subscriber include medical and surgical attention, consultation services, laboratory tests, and anesthesia. Obstetrical care is given after the subscriber has been a member of the plan for one year. Medical care plans on the prepaid level ordinarily make no effort to include some conditions and diseases in the scope of their treatment. Among such conditions and diseases are the following: psychiatric cases, tuberculosis, venereal diseases, alcoholism, and self-inflicted wounds. Certain types of services are also not listed in the subscriber's contract with the plan. Dental care, drugs, nursing service, and hospitalization cost must be paid for by the patient. It should be stated, though, that there are many plans in the United States that do include the above mentioned services along with medical and surgical attention. These are often found in connection with the Blue Cross Group Hospitalization movement, which is, within itself, one of the newer aspects of medical care.

Apparently, the inspiration, organization, and operation of prepaid medical care plans is predicated upon a substantial basis. They may not solve all of the problems of organized medicine today or tomorrow, but they do indicate an increasing social awareness on the part of the medical profession. For this the profession is to be commended. Many segments of the medical profession seem to think that with the additional development of prepaid medical care, further encroachment on the part of the Federal government in this field, as evidenced by the Wagner-Murray-Dingell bill, can be forestalled permanently. The public would much prefer to see the medical profession assume the initiative in solving problems peculiar to it. It has been characteristic of the American public to have unlimited confidence in its men of medicine, and the profession can do more to retain and enlarge that confidence than any other organized group in this country.

TRANSACTIONS

SEVENTY-EIGHTH ANNUAL SESSION OF THE STATE MEDICAL ASSOCIATION OF TEXAS

DALLAS, TEXAS, MAY 10 AND 11, 1944

MINUTES OF THE HOUSE OF DELEGATES

WEDNESDAY, MAY 10, 1944

FIRST MEETING

The House of Delegates was called to order by the President, Dr. C. S. Venable, of San Antonio, at 9:30 a. m., in Parlors "E" and "F," Mezzanine Floor, Adolphus Hotel, Dallas, with an attendance of sixty-five delegates.

The Reference Committee on Credentials reported, as follows:

FIRST REPORT OF REFERENCE COMMITTEE ON CREDENTIALS

Dr. Shannon: We have seated sixty-five members of the House of Delegates. We would like the approval of the House of one exception; we recommend the seating of Dr. Hurst, of Gregg County, who was duly elected to represent his Society, but who left his credentials at home.

Secretary Taylor: The Gregg County Medical Society has made no report this year.

Upon motion of Dr. Thomas M. Jarmon, of Smith, seconded by Dr. R. G. Johnson, of Wharton, Dr. V. R. Hurst was seated.

President Venable: The Secretary will call the roll.

Dr. S. E. Thompson: I move the roll call be dispensed with and the report of the Credentials Committee be accepted.

The motion was seconded by Dr. L. H. Reeves, of Fort Worth, the roll call was dispensed with, and the membership of the House was established in accordance with the roll checked and approved by the Reference Committe on Credentials, as follows:

MEMBERSHIP OF THE HOUSE OF DELEGATES*

Anderson-Houston-Leon—Fred E. Felder.
Angelina—Linwood H. Denman.
Bastrop—J. Gordon Bryson.
Baylor-Knox-McMullen—T. S. Edwards.
Bee-Live Oak-McMullen—C. D. Gipson.
Bell—A. C. Scott.
Bexar—R. E. Parrish, Conn Milburn, L. B. Jackson, W. A. King.
Bosque—Russell D. Holt, Jr.
Bowie—J. N. White.
Brown-Comanche-Mills-San Saba—J. M. Campbell.
Burleson—George V. Pazdral.
Caldwell—A. A. Ross.
Cameron-Willacy—Ralph A. Utley.
Cass-Marion—Joe D. Nichols.
Cherokee—J. M. Travis.
Childress-Collingsworth-Hall—E. W. Jones.
Clay-Montague-Wise—E. W. Wright.
Comal—A. W. C. Bergfeld.
Cooke—Houston Terry.
Coryell—K. R. Jones.
Dallas—Edward White, Hall Shannon, Hugh L. Moore, Jo C. Alexander, Homer Donald.
Dawson-Lynn-Terry-Gaines-Yoakum—J. C. Loveless.
DeWitt—J. Gillet Burns (Herman C. Eckhardt).
Donley-Armstrong—B. L. Jenkins.
Eastland-Callahan—M. L. Stubblefield.
Ellis—S. H. Watson.
Erath-Hood-Somervell—W. H. Guy.
Falls—T. G. Glass.
Fannin—A. B. Kennedy.
Galveston—G. W. N. Eggers, Emil H. Klatt.
Grayson—W. A. Lee.
Gray-Wheeler—H. E. Nicholson.
Gregg—V. R. Hurst.
Hardin-Tyler—W. W. Anderson.
Harris—Clyde Warner, McDonald Orman, John M. Trible, R. B. Bonham, W. E. Ramsay, John T. Moore.
Henderson—N. D. Geddie.
Hidalgo-Starr—H. E. Whigham.
Hill—Clark G. Campbell.
Hunt-Rockwall-Rains—J. W. Ward.
Hutchinson-Carson—L. E. Petty.
Jasper-Newton—J. J. McGrath.
Jefferson—L. C. Heare, (W. D. Brown), L. C. Powell.
Johnson—W. P. Ball.
Kaufman—D. H. Hudgins.
Kimble-Mason-Menard-McCulloch—D. W. Jordan.
Lamar—T. W. Buford.
Lamb-Bailey-Hockley-Cochran—J. R. Coen.
LaSalle-Frio-Dimmit—B. E. Pickett, Sr.
Liberty-Chambers—A. R. Shearer.
Limestone—M. M. Brown.
Lubbock-Crosby—Robert H. McCarty.
McLennan—H. R. Dudgeon, Sr.
Medina-Uvalde-Maverick-ValVerde-Edwards-Real-Kinney-Terrell-Zavala—W. R. McWilliams.
Milam—C. G. Swift.
Morris—Don J. Jenkins.
Navarro—J. Wilson David.
Potter—A. E. Winsett.
Smith—Thomas M. Jarmon.
Tarrant—L. O. Godley, C. O. Terrell, S. J. R. Murchison.
Titus—T. S. Grissom.
Travis—John C. Thomas, Lee E. Edens.
Van Zandt—H. A. Baker.
Walker-Madison-Trinity—W. B. Veazey.
Washington—G. A. L. Kusch.
Wharton-Jackson-Matagorda-Fort Bend—R. G. Johnson.
Wichita—P. K. Smith.
Williamson—M. R. Sharp.
Wood—A. A. McDaniel.
Young-Jack-Archer—H. E. Griffin.

EX-OFFICIO MEMBERSHIP HOUSE OF DELEGATES

President—C. S. Venable, San Antonio.
President-Elect—H. F. Connally, Waco.
Vice-President—T. G. Glass, Marlin.
Secretary—Holman Taylor, Fort Worth.

Board of Trustees—S. E. Thompson, Chairman, Kerrville; T. C. Terrell, Secretary, Fort Worth; W. B. Russ, San Antonio; E. W. Bertner, Houston; J. B. McKnight, Sanatorium.

Councilors—E. A. Rowley, Amarillo; R. E. Windham, San Angelo; C. E. Scull, Chairman, San Antonio; R. T. Wilson, Secretary, Austin; F. J. L. Blasingame, Wharton; J. E. Clarke, Houston; A. E. Sweatland, Lufkin; A. L. Hathcock, Palestine; G. V. Brindley, Temple; J. Edward Johnson, Mineral Wells; C. C. Nash, Dallas; C. A. Smith, Texarkana.

Council on Medical Defense—Holman Taylor, Secretary, Fort Worth; W. D. Jones, Chairman, Dallas; W. L. Baugh, Lubbock; W. A. King, San Antonio; A. P. Howard, Houston.

Committee on Legislation—C. S. Venable (ex-officio), San Antonio; Holman Taylor, Secretary, Fort Worth; J. H. Burleson, Chairman, San Antonio; N. D. Buie, Marlin; L. H. Reeves, Fort Worth; J. Allen Kyle, Houston

SECRETARY'S NOTE: For the sake of convenience the list here published includes all who qualified for membership and who were present some time during the meeting.

President Venable: We will have the reading of the minutes of the previous session.

Secretary Taylor: The minutes of the last meeting of the House of Delegates were published in the June, 1943, number of the TEXAS STATE JOURNAL OF MECICINE. I will explain at this point that these are the edited minutes; the unedited proceedings are in the Secretary's office, and can be seen by any one who wants to see them.

Upon motion of Dr. Hudgins, Kaufman, seconded by Dr. Jones, Dallas, the reading of the minutes of the previous meeting was dispensed with, and the minutes as edited and published in the June, 1943, number of the TEXAS STATE JOURNAL OF MEDICINE were adopted.

PRESIDENT'S ADDRESS

President Venable then delivered his annual address, which appears in the Original Article section of this number of the JOURNAL.

The Secretary announced the Reference Committees of the House, as follows:

Reference Committee on Credentials—H. E. Griffin, Chairman, Young-Jack-Archer; M. L. Stubblefield, Eastland-Callahan; Hall Shannon, Dallas; R. G. Johnson, Wharton-Jackson-Matagorda-Fort Bend; G. A. L. Kusch, Washington.

Reference Committee on Reports of Officers and Committees—L. B. Jackson, Chairman, Bexar; C. O. Terrell, Tarrant; J. Wilson David, Navarro; J. C. Thomas, Travis; Edward White, Dallas.

Reference Committee on Resolutions and Memorials—A. A. Ross, Chairman, Caldwell; B. L. Jenkins, Donley-Armstrong; L. C. Powell, Jefferson; R. E. Utley, Cameron-Willacy; Joe D. Nichols, Cass-Marion.

Reference Committee on Finance—T. G. Glass, Chairman, Falls; J. M. Travis, Cherokee; A. E. Winsett, Potter; H. E. Whigham, Hidalgo-Starr; J. M. Campbell, Brown-Comanche-Mills-San Saba.

Reference Committee on Amendments to Constitution and By-Laws—Conn L. Milburn, Chairman, Bexar; A. R. Shearer, Liberty-Chambers; D. H. Hudgins, Kaufman; W. A. Lee, Grayson; Fred E. Felder, Anderson-Houston-Leon.

Reference Committee on Scientific Work—B. E. Pickett, Chairman, LaSalle-Frio-Dimmitt; J. M. Trible, Harris; G. W. N. Eggers, Galveston; Frank B. Malone, Lubbock-Crosby; T. M. Jarmon, Smith.

President Venable: I wish to refer my address to the Reference Committee on Reports of Officers and Committees.

Next is the report of the Secretary.

The Secretary then read his annual report, as follows:

REPORT OF THE SECRETARY

The heretofore announced policies of the State Medical Association as they relate to the office of the State Secretary, have been continued through the past year. The extra work assumed by the office force through war necessities has increased in volume and intensity, rather than decreased because of the attainment of much of the objective concerned. As emergency features of the various situations obtaining have been met, details, much of them of a statistical nature, have developed, in some cases rather extensively. It has been difficult to maintain an efficient staff for the central office, under the stabilization program of the government. The Trustees of the Association have been liberal enough in allowances to cover additional cost of service, but that has been a small part of the problem. An earnest effort has been made by all concerned to render full, complete and satisfactory service, with what results we are not able to estimate at the moment. A service in point is that of Procurement and Assignment, which, as the bottom of the availability barrel was being scraped and it might be expected that activity would decrease, developed statistical details rather enormously and unexpectedly. The effort was to properly evaluate the situation at this stage of the game, and at the same time lay a reasonably sound predicate for future service when demobilization of our Armed Forces got under way. In this connection, it should be said that the government has furnished the central office with two civil service stenographers, which has helped a good deal. It still is a fact that one stenographer, paid entirely by the State Medical Association, and much of the time of the State Secretary and his Assistant, Dr. Anderson, is being devoted to this service, not to mention incidentally services of other members of the staff.

Other activities of the Association have engaged the attention of the Central Office to an ever increasing extent, the details of which need not be recounted here. It is sufficient to say that the office force has been very busy during the year, and perhaps disturbingly so as relates to efficiency. The one positive assertion that can be made in this connection is that the maximum of effort has been made by each and every member of the staff.

It will be remembered that the annual meeting of the Association last year was abandoned except for the meeting of the House of Delegates. It will be reported elsewhere during this meeting that decision was reached by proper authority to hold the annual meeting this year, as always, except as to time, place and grouping of sections. In order to take advantage of hotel facilities, the meeting is being held on four different dates, and in four different cities. Apparently the plan has worked out admirably, so far. The division of the meeting into so many parts and so many locations, and upon so many dates, has been a bit burdensome, but not excessively so. It is not clear yet as to whether the savings effected will off-set the additional expenses incurred, but quite probably the difference in cost is not going to be considerable, either way.

The American Medical Association will hold its annual meeting this year in Chicago, June 12-16. It will be recalled that only the House of Delegates of the national body met last year. It is not clear whether there will be ample hotel accommodations and satisfactory travel conditions in connection with this meeting, which means that those of our members who expect to attend this meeting should arrange for both hotel accommodations and transportation well in advance. The State Medical Association is entitled to five delegates. The terms of office as delegates of Drs. Holman Taylor, Fort Worth, and F. J. L. Blasingame, Wharton (who succeeded Dr. S. E. Thompson, Kerrville, resigned) will extend through another year. The terms of office of Drs. H. R. Dudgeon, Waco; A. A. Ross, Lockhart, and E. H. Cary, Dallas, expire at the present meeting of the House of Delegates. Drs. R. B. Anderson and L. H. Reeves, Fort Worth, are alternate delegates for Drs. Taylor and Blasingame. Drs. E. W. Bertner, Houston; H. Leslie Moore, Dallas, and B. E. Pickett, Carrizo Springs, are alternates for Drs. Dudgeon, Ross and Cary. The terms of delegates and alternates expire at the same time.

The following changes have taken place in the official family of the State Association during the year:

Dr. Sam E. Thompson of Kerrville, resigned as Delegate to the American Medical Association, and Dr. F. J. L. Blasingame of Wharton was appointed to fill the vacancy thus created.

Dr. R. B. Homan of El Paso, a member of the Committee on Tuberculosis, died September 6, 1945. No successor was appointed.

Dr. W. A. Smith of Beaumont, was appointed Fraternal Delegate to the Louisiana State Medical Society, upon the request of that Society for representation from our Association. No other fraternal delegates were appointed by the President, because of the war situation.

No new county medical societies were chartered during the year. It is understood that several changes in county society areas and jurisdiction are under consideration, but no decision has been reached in any such case.

Membership.—As has been the case heretofore, war conditions have upset our membership situation. Because of the creation of Military Membership, we have gained members but lost money. Last year at the time the books were closed, April 23, there were 3,445 members, including 33 honorary members, 22 intern members, and 3 members emeritus. These figures represented a loss of 371 members at that time, which loss failed of recuperation. The total loss for the year was, instead, 785 members. In other words, we failed to make good the loss by $7,016.00 in money. At the time the books were closed this year, April 24, the membership was 4,258, divided as follows: regular members, 3,177; military members, 1,019; intern members, 14; honorary members, 44, and members emeritus, 4. These figures disclose an actual loss in paid membership of 208, over the same period last year. Assuming that each of the military members would have paid dues, a total loss of $9,171.00 is incurred.

Military Membership.—As will be reported by the Trustees, the Military Membership called for by resolution adopted by the House of Delegates last year, has been set up and is in force at the present time. It has been necessary to deny the JOURNAL and Medical Defense to military members, mainly because of the war situation. Congestion of the mails and scarcity of paper, have brought about governmental regulation of all publications, including our own, so that free copies cannot be furnished except under very definitely justified conditions, which do not obtain in connection with military membership. In this connection, it may be reported here that many of our military members have subscribed to the JOURNAL, which they, of course, have a perfect right to do. The only problem in this procedure is the shortage of paper, which may make it impossible for even that, except to a limited extent. The cost of medical defense in the future may be unfavorably influenced by the war situation, but the fact remains that medical defense may be had only where $1.00 membership dues have been collected, which is a situation with which the Trustees could not very well deal effectively.

County Society Reports.—The following county medical societies have failed to file annual reports:

Bastrop, Gregg, Harrison, Hunt-Rockwall-Rains, and Victoria-Calhoun-Goliad.

The following societies have failed to pay any dues at all for the year:

Hansford - Hemphill - Lipscomb - Roberts - Ochiltree, and Kleberg-Kenedy.

The following county society reports less than five members, which number is necessary to the continuation of a charter:

Lee County Society.

Honorary Members.—The following members of the State Medical Association died during the year:

Dr. Eugene O. Boggs, Spring (March 15, 1944).

Dr. P. H. Cronin, Houston (Nov. 10, 1943).

Dr. William Carlton Farmer, San Antonio (April 5, 1944).

Dr. George W. Larendon, Kerrville (Feb. 18, 1944).

Dr. Stephen D. Naylor, Stephenville (Oct. 17, 1943).

Dr. Frank E. Piner, Denton (June 30, 1943).

Dr. Hill Rowe, Denton (Aug. 21, 1943).

Dr. Warren F. West, Waxahachie (Sept. 28, 1943).

The fact remains that there is still uncertainty as to honorary membership requirements. Honorary members are nominated by county medical societies, and elected by the House of Delegates of the State Medical Association. The county society must pay dues in the sum of $4.00 for each honorary member carried on its rolls. No honorary member can be placed on a county society roll until he has been elected to that status, of course. The nomination for honorary membership status should be sent to the State Secretary by the county society secretary, and at the same time the councilor involved should be notified of this action. The House of Delegates is notified by the State Secretary, and the House of Delegates passes the nomination to the Board of Councilors. The Board of Councilors reports back on the nomination to the House of Delegates, and the House of Delegates acts.

The following nominations for honorary membership have been made this year by county medical societies:

Dallas County: Dr. Charles M. Rosser, Dallas, born 1862, member of the State Medical Association continuously from 1904 through 1943.

Dallas County: Dr. Sam Webb, Dallas, born 1882, member of the State Medical Association 1907-1911; 1913 through 1943.

El Paso County: Dr. Willis Willard Waite, El Paso, born 1876, member of the State Medical Association 1923 through 1943.

Galveston County: Dr. Wiley Junior Jinkins, Galveston, born 1887, member of the State Medical Association 1915-1921; 1923 through 1943.

Harris County: Dr. Joseph Elbert Daniel, Houston, born 1878, member of the State Medical Association 1905-1922; 1924 through 1943.

It is not certain that the Handbook for the House of Delegates can be published in time to enable the State Secretary to place a copy in the hands of each delegate prior to his departure for the annual meeting this year. This is the custom, as is well known, and the purpose of the procedure is to make it possible for delegates to read and study the reports thus published in advance of the meeting, in order that they may act promptly and intelligently in their consideration and in making decisions. The time available for the purpose is necessarily limited by the time between the closing of the books of the Association, and the convening of the House of Delegates. As it happens, and because of the war, there are not sufficient facilities available to the printers and others busy with the matter, to permit of the expedition which is necessary at best. Therefore, if these Handbooks were not in the hands of delegates before the meeting convened, they will understand the reason why.

The mandates heretofore presented to the State Secretary by the House of Delegates have been properly complied with, and the indicated duties performed.

Again I must ask the privilege of extending to the members of the State Medical Association my personal appreciation and thanks for their forbearance and coöperation. I am particularly grateful to the members of my staff for their loyalty and service in particular and in general. Without such devotion to duty, the work of the Central Office could not have been accomplished to any very satisfactory extent. My recent incapacitating illness for three months is probably well known to all concerned. During this period, and to a considerable extent since, my associate, Dr. R. B. Anderson, has carried on fully, completely and, I think, with entire satisfaction to all whom we serve. It is not possible to adequately express gratitude for such service,

under such circumstances. Whether or not we have made mistakes and committed errors during the year, we have done the best we could, and I am convinced that any such mistakes and errors have been relatively few and far between, and excusable under the existing circumstances.

Respectfully submitted,
HOLMAN TAYLOR, Secretary.

This report will be referred to the Reference Committee on reports of Officers and Committees, except that part of it that applies to honorary memberships, which will be referred to the Board of Councilors, acting as a Reference Committee.

Next, the Report of the Treasurer.

Secretary Taylor: Dr. Beall asked that I present his report in the instance he did not happen to be here when the report was called for.

Secretary Taylor then presented the Report of the Treasurer, as follows:

TREASURER'S REPORT

As of April 24, 1944

The facts and figures pertaining to the accounts of the Treasurer are reflected in the auditor's report, which will be submitted by the Board of Trustees, and to which I refer.

There is cash in the Treasury, as of April 24, 1944, in the sum of $29,763.72, on deposit with the Fort Worth National Bank of Fort Worth, Texas. In addition, the sum of $2,334.47 is on deposit with the First National Bank of Fort Worth, and $80.00 is held in the office of the State Secretary, for which latter two amounts the Secretary is responsible.

During the period from April 24, 1943, to April 24, 1944, cash from all sources was received in the aggregate amount of $67,889.36. Disbursements from the Treasurer's account to the Association Operating, or Secretary's, account totaled $65,200.00, and bank collection charges were $0.65. The balance on deposit in the Treasurer's account at the beginning of the period was $27,075.01, and at the close of the period, as stated above, $29,763.72.

Analysis showing changes effected in the Investments of the Association during the past year is as follows:

Investments—April 24, 1943		$66,946.26
Additions:		
U. S. Savings Bonds, Series "G"	5,000.00	
		$71,946.26
Principal Payments:		
Wm. R. Thompson, Jr., note paid in full	$5,000.00	
Partial payment on John H. Freeman notes	2,500.00	7,500.00
INVESTMENTS—April 24, 1944		$64,446.26

A schedule of the investments is submitted in the audit report.

During the year interest and dividends in the aggregate amount of $3,307.30 were received on the above securities.

As Treasurer of the Texas Memorial Medical Library Association, I report the following investments of said association as of April 24, 1944:

Shares of Building and Loan Associations	$ 3,000.00
U. S. Savings Bonds, Series "G"	4,000.00
	$ 7,000.00

Summary of cash transactions of the Library Association for the past fiscal year is as follows:

Cash on Deposit—April 24, 1943		$ 133.45
Receipts:		
Dr. Martin Junius Taylor Fund	$1,000.00	
Dr. and Mrs. Wm. Thomas Carter Memorial Fund	1,000.00	
Income from Investments	172.50	2,172.50
		$ 2,305.95
Disbursements:		
Purchase of U. S. Savings Bonds, Series "G"	$2,000.00	
Distribution to State Medical Association of Texas	209.13	2,209.13
CASH ON DEPOSIT—April 24, 1944		$ 96.82

Reference is made to audit report of the Texas Memorial Medical Library Association for more detailed information in this connection.

Respectfully submitted,
K. H. BEALL, Treasurer.

We certify that the above is correct as disclosed by audit.

McCAMMON, MORRIS, PICKENS & MAYHEW.

President Venable: This report will be referred to the Reference Committee on Finance.

Next, is the report of the Board of Trustees.

Dr. S. E. Thompson, Chairman of the Board of Trustees, then presented the Report of the Board of Trustees, as follows:

REPORT OF THE BOARD OF TRUSTEES

The past fiscal year has, indeed, been exceptional and exacting. The Trustees, judging from the experience of the preceding war year, anticipated developments somewhat, and were in a measure prepared for them. However, the demands have been greater and more complicated than had been expected, which statement is by way of an attempt to impress upon this House of Delegates the seriousness of the problems presenting during the year.

To the problem of Procurement and Assignment, which progressed rather satisfactorily during the year, if, indeed, it did increase in scope and demand, was added the expected problem of Military Membership and refund of dues, and the perhaps more serious problem of a Public Relations program in defense of the practice of medicine against the jeopardy of socialized medicine. These matters will be separately considered in this report. Because of these and other such complications and exactions, the Central Office has experienced increased difficulty in maintaining an adequate staff.

Procurement and Assignment.—It will be remembered that the Secretary of the State Medical Association of Texas, is Texas Chairman of Procurement and Assignment of Physicians, with his assistant, Dr. Anderson, as Vice-Chairman. Technically, the Chairman and Vice-Chairman of this Committee are "Advisers to the War Manpower Commission," appointed by Mr. McNutt. The State Chairman, in accordance with the authority vested in him, appointed the State Association Committee on Military Affairs as State Committee on Procurement and Assignment, with the existing county society Committee on Military Affairs as County Committees on Procurement and Assignment. Thus the original plan of this service has been definitely tied into the State Medical Association, in order that whatever is done in this connection represents the consensus of the medical profession of the State, locally and at large. The whole problem lies in the distribution of the available practitioners of medicine in the State, to the Armed Forces, Industry, Public Health and the Public. In short, it is a rationing program, with unusual complications and considerations. It

LIBRARY OF THE

is not the province of the Board of Trustees to report upon this subject, except that the facilities of the State Medical Association of Texas have been used in administration.

We are pleased to advise that since our last report, many of the difficulties recited at that time have been eliminated. At the time of our last report, there was one clerk in the Central Office drawing Government pay. During the year another clerk was added to the staff. In addition, the government has assumed a good many of the routine expenses attendant upon the Procurement and Assignment Service which had previously been carried by the Association, including the entire cost of communications by letter, telegraph or telephone. Indeed, a government telephone has been installed in the Central Office, for use of Procurement and Assignment, as relates to physicians, dentists and veterinarians. The cost of necessary travel has been assumed by the government, under regulations easy of accomplishment.

The Auditor's Report will disclose that the sum of $2,049.75 has been spent in connection with Procurement and Assignment, as against the sum of $2,707.24 the preceding year, which figures, incidentally, have at no time included the cost of extensive service rendered by the various members of the staff of the Central Office.

Military Membership.—Pursuant to the terms of a resolution adopted by the House of Delegates, the Trustees have set up the machinery necessary in the matter of refunding dues paid by our military members, and exempting military members from the payment of dues. It has not been an easy task to provide for the refund and the exemption along consistent lines. In all such matters, there must be legal and financial justification. Both our General Attorney and our Auditor have approved the plan at the present time being followed in the procedure. There has been no change in the By-Laws as relates to the method of electing members, and no change in the necessary qualifications for membership, regardless of the changes pertaining to military membership, and the refunding of dues paid by those of our members who were in military service during the period of time for which they had paid, which fact makes it necessary to observe certain technicalities. This leads to the impression that something unnecessary is being done, such as marching up the hill and down again, but it is believed that the procedures being followed are fully justified.

The Auditor's Report will disclose that we have actually refunded the dues of 329 members, in the sum of $2,941.00, whereas the exemption from the payment of dues has been granted 731 members, in the sum of $6,579.00. Thus, the assumed obligation of the State Medical Association toward its members who are in military service has cost the Association $9,520.00. The totals in this connection will be increased as the membership for the calendar year is developed. The money necessary to render the above discussed service has been taken from the heretofore designated "Surplus," now called "Net Worth." Whatever it is called, it is demonstrably a "Working Balance," and certainly in this instance serves a good if not essential purpose.

It is the opinion of the Board of Trustees that instead of depending upon resolution for the exemption of military members from the payment of dues, which will be the only problem in that connection hereafter, the Constitution and By-Laws should be so amended as to provide for whatever exemption from dues the Association would care to extend to such members. It will be recalled that an effort was made last year to so amend the By-Laws, but the effort was abandoned in favor of the resolution under which we are working now. It was not at that time considered necessary to amend the Constitution, and it is not necessary to do so now, but it is thought best that such an amendment be set up, as a matter of consistency, even though the enacting By-Law can be made effective at once, and without waiting for adoption of the amendment to the Constitution. Indeed, the procedure to be thus provided for is in full effect and force now.

It is therefore proposed, and the Chairman of the Board of Trustees herewith offers a motion that the Constitution and the By-Laws of the State Medical Association of Texas be amended as follows:

Amend Section 1, Article II of the Constitution, page 3 of the January 1, 1941, edition, by adding to the Section the following language: "It is also provided that county societies may elect to military membership those members who are at the time serving with the Armed Forces of our country, including the Coast Guard and such similar services in time of war, such memberships to terminate with their discharge from service."

Amend Section 2, Chapter I of the By-Laws, page 9 of the January 1, 1941, edition, by inserting after the word "members" in the first line of the Section, a comma, and the words, "military members."

Amend Chapter XI of the By-Laws, by adding a new section, to be known as Section 6, page 27 of the January 1, 1941, edition (subsequent sections to be re-numbered accordingly), to read as follows:

"Section 6. County medical societies may elect to military membership those members who are in the Armed Forces of our country during the period of a war. Military members will be required to pay a yearly fee of $1.00, to cover Medical Defense. It is provided that military membership will not include subscription to the 'Texas State Journal of Medicine'."

Amend Chapter XIV of the By-Laws, by adding a new section, to be known as Section 3, page 34 of the January 1, 1941, edition (subsequent sections to be re-numbered accordingly), to read as follows:

"Section 3. Military members shall be assessed dues of $1.00, to cover Medical Defense. It is provided that military membership shall not include subscription to the 'Texas State Journal of Medicine'."

It has been discovered that while the status of honorary membership has been covered by the Constitution, and by Chapter XI of the By-Laws pertaining to County Societies, it has not been covered by amendment to Chapter XIV of the By-Laws pertaining to Assessments. The omission is not highly important, but in order to be consistent, this Chapter of the By-Laws should be amended to accord with the other amendments pertaining to honorary membership. Therefore, the Chairman of the Board of Trustees moves that the following amendment be adopted:

Amend Chapter XIV of the By-Laws, page 34 of the January 1, 1941, edition, by adding a new section, to be known as Section 4 (subsequent sections to be re-numbered accordingly), to read as follows:

"Section 4. Honorary members, as provided for in the Constitution and these By-Laws of the State Medical Association of Texas, shall be assessed dues, to be paid by the county societies concerned, as follows: $4.00 per capita, of which $3.00 shall be for subscription to the 'Texas State Journal of Medicine', and $1.00 for Medical Defense."

The latter amendment is suggested at this point in the Report of the Board of Trustees, because of its relationship to the other proposed amendments, all of which have to do with the finances of our Association.

Public Relations.—The Executive Council will report rather fully, and it is expected that the Committee on Public Relations created by the Executive

Council in the interim will add details perhaps extensively, on the publicity campaign planned as a counter-attack in the impending legislative battle of socialized medicine. It is sufficient for the Trustees to advise that, acting upon the request of the President of the Association, the sum of $3,000.00 was set aside to cover the expense of this campaign for six months. The Trustees joined the President of the Association in requesting donations to the fund thus created, by our favorably disposed members. The Auditor's Report will disclose that the sum of $3,677.75 has thus been contributed. The contribution is being used by our auditors in offsetting the appropriation made by the Board of Trustees. The further accounting in this particular will depend upon the action of this House of Delegates in determining whether the now badly needed funds for carrying on the work of the Association shall be raised entirely by dues, or partly by dues and partly by donations.

Membership.—As before stated in its reports, the Board of Trustees is interested in the matter of membership because of its relationship to the finances of the Association. Each membership should produce a definite amount of money, and cost a definite sum of money. Indirectly, membership determines to a large extent the drawing power of the advertising section of the JOURNAL. The greater the circulation of the JOURNAL, the more readers are reached by our advertisers. The percentage of readers of any publication who give thought to the advertisements in the publication, is relatively easy of determination by statisticians versed in such matters.

Last year, the State Secretary had reported that there were 3,445 members at the time the books were closed, April 23rd. There were thirty-three honorary, twenty intern members, and three members emeritus. These figures represented a loss of 371 members at the time, which loss failed of recuperation. The total loss for the year was, instead, 785 members. In other words, we failed to make good the loss in money by $7,016.00.

Since that report, and as already noted here, the By-Laws of the Association have been so changed as to set up a new membership, "Military Membership," free of dues. While this membership does not carry with it subscription to the JOURNAL, or Medical Defense, and which, therefore, does not cost the Association as much as the regular membership, it must be remembered that financially we are short $9.00 for each regular or $4.00 for each intern member, whose dues are returned after having been made a Military Member, provided we could figure that they would all renew their respective memberships. The Report of the Auditor will disclose the exact figures in the matter.

The State Secretary reports that at the time his books were closed this year, April 24th, the membership was 4,258, divided as follows: regular members, 3,177; military members, 1,019; intern members, 14; honorary members, 44, and members emeritus, 4. These figures disclose an actual loss in paid membership of 208, over the same period last year. Assuming that each of the military members would have paid dues, a total loss of $9,171.00 is incurred.

Shall Our Dues Be Increased?—After a complete survey of our financial status, and considering the demonstrated fact that our income has diminished, and our expenses increased, your Trustees feel that they should recommend to you that our annual dues should be increased to the extent necessary to meet increased expenses, including the cost of a very desirable expansion of activities.

The added expenses, and the loss incurred in connection with military membership (which amounts now to an annual loss of approximately $9,500.00), if each Texas doctor who is now in the service becomes a military member, and might otherwise be expected to renew his regular membership, the loss would be better than $10,000.00. (We are not permitted to give exact figures).

The expenses of the newly created Public Relations Committee, as already stated, have been underwritten for the first six months, to the amount of $3,000.00. While the Trustees have no fear that the Wagner-Murray-Dingell Bill, providing for socialized medicine, will be enacted into law at any time in the near future, the fact remains that the philosophy upon which this measure is based is deep-seated, and must be defeated in the long run, through great effort.

It will be recalled in this connection, and the Report of the Auditors will so disclose, that approximately $4,500.00 was spent in legislative activities for the protection of the public health during the last session of the Legislature.

Therefore, and under the circumstances, your Board of Trustees feels that the dues should be raised. The Trustees would not assume the responsibility of fixing the amount. This is the responsibility of the House of Delegates.

The 1944 Annual Meeting.—As will be reported by the Executive Council, the annual meeting of the Association for this year is being held in four parts, in four different cities, which arrangement became necessary by virtue of the fact that thus travel was minimized, and hotel accommodations made available. The net cost of the meeting will be a little more than usual because of the spread, and also because of the absence of technical exhibits, which exhibits, it will be remembered, have heretofore produced a substantial income. It will be remembered, also, that last year the annual meeting comprised the meeting of the House of Delegates alone, which fact resulted in a substantial saving, particularly in that the House of Delegates met in Fort Worth, where the headquarters of the Association are located. It is not possible at this time to render an accurate account of the cost of our diversified meeting this year.

Library. — The most significant development in connection with the Library during the past year has been the establishment of a motion picture lending service, which project we have had under consideration for some time. In October, 1943, announcement was made editorially in the JOURNAL, of the establishment of the service, and county medical societies were urged to make use of it, particularly smaller societies having difficulty in securing programs for their meetings because of conditions imposed by the war. Since its establishment, 35 films have been acquired, of which number 15 are silent and 20 are sound films. Fourteen of these films are for professional audiences — doctors, medical students, medical technicians, or nurses, and 21 are for lay groups. Thirty-one of them have been furnished the Library by pharmaceutical and biological firms, and other agencies and organizations interested in either health or medical education. Of these, 19 films have been placed in the Library on a long-time loan basis, without charge, it being thought by these organizations and firms that the publicity given regularly through the pages of the JOURNAL, concerning the availability of the films, would result in their greater use.

In five months, 56 films have been loaned, and have been shown to 2,363 persons, which is a fairly good record for a project launched in a period in which it is difficult for groups to find time for such study. We believe this project will in time be one of the most popular and valuable educational services the Library and Association can render its members, and, also, that it will be of outstanding usefulness to members of the Association and the

Woman's Auxiliary in health education of the public on such subjects as cancer, tuberculosis, venereal disease, and so forth.

So far, only two films have been purchased.

Two members of the Association have donated films—Dr. Herbert Hipps, Marlin, now in the armed services, a film on the "Sister Kenny Treatment of Poliomyelitis," and Dr. Louis Daily of Houston, a film, "Refinements in the Technique of the Radical Mastoid Operation and an Improved Plastic Flap," for which donations the Trustees express appreciation. It is believed that many members have excellent films of their work, which they will be glad to make available to their fellows by donating them to the Library.

The Trustees wish here to record their appreciation of the very generous and valuable donation of twelve sound films by the Texas Tuberculosis Association. These are excellent films for teaching the public the simple principles of prevention of tuberculosis, and the orthodox and reliable procedures in its diagnosis and treatment. One of these films is in Spanish, and will be very useful for showing to the Mexican population in parts of Texas.

We shall list here for later convenience, all films now in the Library available for loan. All are 16 mm. films. The only charge made in connection with the loan is transportation and insurance in transit. The borrower is held accountable for damage to films.

The list of films now in the Library follows:

LOANED BY MEAD JOHNSON AND COMPANY

1. *Goiter Surgery*, silent (professional).
2. *The Administration of Oxygen by Oro-Pharyngeal Catheter*, silent (professional).
3. *Methods for Determination of Bleeding Tendency*, silent (professional).
4. *The Care of the Premature Infant*, silent (professional).
5. *Roentgen Pelvimetry*, silent (professional).
6. *The Treatment of Empyema*, silent (professional).
7. *The Orthopedic Treatment of Infantile Paralysis*, silent (professional).
8. *The Technique of Blood Transfusion*, silent (professional).

LOANED BY LEDERLE LABORATORIES, INC.

9. *Globulin Modified Antitoxins*, silent (professional).
10. *Immunization Against Infectious Diseases*, silent (professional).
11. *Sulfonamide Therapy*, silent (professional).
12. *Vitamins*, silent (professional).
13. *Pneumonia*, silent (professional).

LOANED BY AMERICAN SOCIAL HYGIENE ASSOCIATION

14. *Health Is a Victory*, sound (lay).
15. *In Defense of a Nation*, sound (lay).
16. *Plain Facts*, sound (lay).

LOANED BY JOHNSON & JOHNSON

17. *Sutures Since Lister*, sound (professional and lay).

LOANED BY TEXAS STATE DEPARTMENT OF HEALTH

18. *Know for Sure*, sound (lay—for men only).

LOANED BY NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

19. *Report to the People*, sound (lay).

DONATED BY TEXAS TUBERCULOSIS ASSOCIATION

20. *Goodbye, Mr. Germ*, sound (lay).
21. *Behind the Shadows*, sound (lay).
22. *The Role of the Public Health Nurse in Tuberculosis*, sound (lay).
23. *Diagnostic Procedures in Tuberculosis*, sound (lay).
24. *Middletown Goes to War*, sound (lay).
25. *Sand in the Gears*, sound (lay).
26. *Cloud in the Sky*, sound (lay).
27. *Cloud in the Sky*, Spanish, sound (lay).
28. *They Do Come Back*, sound (lay).
29. *On the Firing Line*, sound (lay).
30. *Let My People Live*, sound (lay).
31. *Another to Conquer*, sound (lay).

DONATED BY DR. LOUIS DAILY

32. *Refinements in the Technique of the Radical Mastoid Operation and an Improved Plastic Flap*, silent (professional).

DONATED BY DR. HERBERT E. HIPPS

33. *Sister Kenny Method of Treatment of Poliomyelitis*, silent (professional).

PURCHASED BY ASSOCIATION

34. *Choose to Live*, sound film on cancer (lay).
35. *Malaria*, sound (professional and lay).

As anticipated, there was an increase in the use of the library package service during the past year, which was the result of its availability being made known to medical officers in the armed services stationed in Texas. Only recently a complete list of Army and Navy stations in the State, where there are medical officers, has been obtained, and these officers will be invited to make full use of the library package service. If the war should continue another year, we believe that our next report will show an even greater use of the package service, by physicians in the armed services in Texas.

The library service has been operated under difficulties because of a shortage in the staff practically all of the past year. A new assistant librarian has been employed, who is on only a part-time basis until November, when she will receive a degree from Texas Christian University. She will then be employed full-time. She was selected because of her knowledge of Spanish. She expects to become proficient in reading French, Italian and Portuguese, so that after the war she may in time be able to make abstracts or to translate medical articles in the Romance languages as desired in the Library service, when foreign journals are again available. When the library budget will permit, we should like to employ a second assistant, one who can read German and the allied Germanic languages, to translate or abstract articles in these languages for those desiring such service.

During the past year we were informed by a structural engineer, who periodically inspects the Association building, that no more weight could be added to the first floor, which houses the Library. Since there is a constant accession of 176 medical journals, and many pamphlets and reprints to the library each month, besides new books reecived, all of which weigh heavily, a problem was immediately presented that demanded solution.

As a temporary expedient, a large number of the books have been moved to the basement, but this is not satisfactory for two reasons. First, it will give only temporary relief, and second, the books will deteriorate if kept in the basement.

The Trustees believe that soon after the war the Association should build a modern, fireproof Library building, in which the offices of the Association will be housed as at present. Determination must be made as to future policy of the Library, with regard to books, whether plans should be made for an all-inclusive book library as well as journals and re-

prints, or whether the Library should specialize in current literature, and not attempt to have more than about 1,000 books, including the latest standard works in every field, building instead a great journal and reprint library, with motion pictures, slides, and other such material that can be made available readily by loan to members throughout the State as has been done successfully in the package service for the past several years. Such policy would not require anything like as large a building as an all-inclusive book library would demand. The Trustees expect at this meeting to give thoughtful consideration to a determination of policy in this matter, since decision with regard to what shall be done with the books on hand has a pertinent bearing on the problem, and the decision cannot be put off or evaded.

We are pleased to report we have been informed that Mr. and Mrs. G. A. Ray of Pettus, Texas, are establishing an endowment fund of $1,000.00, in memory of their daughter, Romayne Ray, sister of Mrs. S. F. Harrington of Dallas, Chairman of the Library Endowment Committee of the Woman's Auxiliary to the State Medical Association. This money has not been received by the Trustees, for which reason the fund is not accounted for in this report, but it will appear in our next annual report.

The present endowment funds of the Library are listed herewith in order to give an accounting of expenditure of the funds.

Dr. and Mrs. Sam E. Thompson Memorial Fund $1,000.00

(Established by Dr. and Mrs. Sam E. Thompson, Kerrville, Texas, July 30, 1940).

Dividend on Equitable Building and Loan Association		$32.50
Balance from last year		27.47
Total		$59.97
Journal of General Physiology	$ 5.00	
Diseases of the Nervous System	2.50	
American Journal of Syphilis, Gonorrhea and Venereal Diseases	6.75	
Journal of Thoracic Surgery	6.75	
Journal of Bacteriology	10.00	
Journal of Immunology	9.00	
Medical Care	3.00	
Cunningham's System of Library Classification	2.75	
American Review of Soviet Medicine	6.00	
Total		$51.75
Balance unexpended		$ 8.22

Warner E. Williams Memorial Fund $1,000.00

(Established by Dr. and Mrs. E. W. Bertner, Houston, Texas, July 30, 1940, in memory of Mrs. Bertner's father.)

Dividend on Mutual Building and Loan Association		$32.50
Balance from last year		21.94
Total		$54.44
Journal of Nervous and Mental Diseases	$10.00	
Journal of Clinical Endocrinology	6.50	
Bulletin of the Johns Hopkins Hospital	6.00	
Journal of Aviation Medicine	5.00	
Military Surgeon	4.00	
Gastroenterology	6.00	
Medicine	5.00	
American Journal of Clinical Pathology	6.00	
Medical Woman's Journal	1.50	
Total		$50.00
Balance unexpended		$ 4.44

Texas Pediatric Society Library Endowment Fund $1,000.00

(Established by the Texas Pediatric Society, July 30, 1940.)

Dividend on Tarrant County Building and Loan Association		$32.50
Balance from last year		42.54
Total		$75.04
Journal of Pediatrics	$ 8.50	
Total		$ 8.50
Balance unexpected		$66.45

Hattie Preston Hunt Fund $1,000.00

(Established by Dr. Preston Hunt, Texarkana, Texas, May 22, 1941, in memory of Mrs. Hunt.)

Interest on U. S. Defense Bond, Series G		$25.00
Balance from last year		23.50
Total		$48.50
Anesthesiology	$ 6.00	
International Surgical Digest	3.00	
Quarterly Review of Obstetrics and Gynecology	9.00	
British Journal of Urology	5.75	
American Journal of Anatomy	15.00	
American Journal of Medical Technology	2.50	
Total		$41.25
Balance unexpended		$ 7.25

Dr. and Mrs. N. D. Buie Fund $1,000.00

(Established by Dr. and Mrs. N. D. Buie, Marlin, Texas, May 11, 1942.)

Interest on U. S. Defense Bond, Series G		$25.00
Balance from last year		18.00
Total		$43.00
Cancer Research (journal)	$ 7.00	
Malaria (sound motion picture film)	21.38	
Choose to Live (sound motion picture film on cancer)	12.75	
Total		$41.13
Balance unexpended		$ 1.87

Dr. and Mrs. Wm. Thomas Carter Memorial Fund $1,000.00

(Established by Dr. and Mrs. Judson L. Taylor, Houston, Texas, May 7, 1943, in memory of Mrs. Taylor's parents.)

Interest on U. S. Defense Bond, Series G		$12.50
American Journal of Psychology	$ 6.50	
Total		$ 6.50
Balance unexpended		$ 6.00

Dr. Martin Junius Taylor Fund $1,000.00

(Established by Dr. and Mrs. Judson L. Taylor, Houston, Texas, May 7, 1943.)

Interest on U. S. Defense Bond, Series G		$12.50
Occupational Therapy	$ 5.00	
Handbook of Medical Library Practice	5.00	
Total		$10.00
Balance unexpended		$ 2.50

The Trustees wish to acknowledge with appreciation the donation by Mrs. S. A. Collom of Texarkana, of the following old medical books, valued because of their age, from the library of the late Dr. Collom:

Dunglison: Practice of Medicine, Vols. 1 and 2, 1844.

Wood: Practice of Medicine, Vols. 1 and 2, 1855.

Wood: Therapeutics and Pharmacology, Vols. 1 and 2, 1856.

Condie: Lectures of the Principles and Practice of Physic, delivered at King's College, London, by Thomas Watson, M. D., 1849.

Meig: Woman and Her Diseases, 1854.

Meig: On Diseases of Children, 1858.

Rambotham: System of Obstetrics, 1856.

Dunglison's Medical Dictionary, 1857.

Van Buren and Keyes: Genito-Urinary Diseases with Syphilis, 1879.

During the past year, 460 duplicate journals were donated to the library of the Southwestern Medical College, Dallas.

Copies of 140 journals have been sent to the bindery for binding.

To conserve space, and because of the already extended length of this report, we are omitting from it the customary tabular data regarding the use of the library and accessions in journals and reprints, which data have been recorded by the Librarian for later publication.

The Auditor's Report is attached hereto and made a part of this report. An effort has been made to place our report and that of the Auditor in the hands of each member of this House of Delegates in ad-

vance of the meeting of the House. It is anticipated that each member of the House has received his Handbook, which includes this report, and that he has given it the necessary study. Thus only can he act intelligibly and satisfactorily on the report and the suggestions and recommendations of the Board of Trustees.

The Secretary of the Association will be glad to explain the figures or any item in the Auditor's Report, to any member of this House.

The function of the variously denominated "Surplus," "Working Balance," "Net Worth," is made clearly evident by a study of the Auditor's Report for this year. Thus any deficit in any of the funds can be easily adjusted by using the money heretofore accumulated in that fund, provided there has been an accumulation. In the instance there has been no accumulation in a fund, which is the case with our so-called Public Relations Fund, the Trustees can by appropriate action transfer from another fund money which has accumulated there, and is not useful at the moment. Fortunately, the Trustees do not suffer the inhibitions set up by law in the case of government funds. It is not unusual to find the State of Texas paying interest on borrowed money, while large sums are deposited to the credit of the State in various funds. The inhibitions are necessary in the case of the government, of course, but they would be without point or useful purpose in connection with an ordinary business, which can be controlled by an individual or a small group.

The Auditor's Report will disclose that the total assets of the Association are $112,011.21 which is $1,781.21 more than the total assets last year. It will be remembered that our total assets last year were $2,114.60 less than the year before that. The two together make a total of $3,895.81. The net income of the Association this year is $3,118.71. These figures taken together are self-explanatory. We are holding our own in spite of everything.

The Association Fund, which is the catch-all fund, suffered a deficit of $524.07. The net worth of this Fund the year before was $16,626.67. Therefore, while the Fund actually lost money during the present year, it made up the amount lost by using the net worth of the Fund, which leaves $16,114.60 still available for the operations of the Association falling under this head.

It has long been the policy of the Trustees to spend its money on the JOURNAL and save, if necessary, on the other funds. It has not always been possible to do that, as was the case this last year. As a result of this policy, the net worth of the Journal Fund at the beginning of the year was $9,871.00, considerably less, it will be noted, than was the case with the Association Fund. The JOURNAL cleared $4,330.36 during the year, bringing the net worth of the Journal Fund up to $14,282.36. Money can be taken from this balance to help out elsewhere, if necessary, as has already been stated.

Because of the shortage of paper the JOURNAL has been reduced in size somewhat. The reduction in size is not what it might easily have been had subscription thereto been included in the so-called Military Membership. There has been a real shortage in paper, but in spite of that, and partly because of the temporarily reduced circulation, it has been possible to keep the JOURNAL in fair size, and fairly well balanced as between departments. Indeed, informative features have been added, including the publication of important information from the State Health Department, and of needed information as to the newly set up Motion Picture Library.

The Medical Defense Fund has an accumulation of $27,313.09. This fund saved $3,167.10 last year. The Council on Medical Defense has pointed to the need of a net worth of ample size in this fund.

The Public Relations Fund is expected to show a deficit each year. This year the activities of the newly created Committee on Public Relations increased the cost a great deal more than had been anticipated at the beginning of the year. Fortunately, the medical profession of the State has rallied to the support of the fund by making considerable contributions thereto ($3,677.95), thereby reducing the deficit to $2,054.68.

Again we call particular attention to that part of the Auditor's Report, pertaining to the Texas Memorial Library Association. The operations of the Library are paid for through the Association Fund, which fund, it will be recalled, lost money during the year. The cost of books and publication alone was $697.26. The total cost to the Association of its Library service was $4,332.12. The Texas Memorial Medical Library Association contributed $209.13 to the Library, all of which went for publications and motion picture films. It can easily be seen how the Texas Memorial Medical Library Association can serve the State Medical Association in the support of its Library. It has a long way to go before balancing things.

The budget this year must be looked upon as tentative. It is hardly possible to estimate the income from the available sources, and it is certainly not possible to estimate the outgo without knowing what the policies of the Association will be with regard to some of the present activities of the Association. The Trustees have assumed that the deficit incident to the Military Membership setup will continue, and that the activities of the Association will remain as they are at the present time. It is not possible to know what will be decided upon with regard to the activities of the Public Relations Committee. Attention is drawn to the solution of the problem made by the Trustees and the Auditor. The budget shows a deficit of $1,870.00 in the Association Fund, and $5,865.00 in the Public Relations Fund, based on the operations of last year. There is a profit in each of the other Funds, which brings the net deficit to an estimated $5,235.00 for the year. If the dues are raised, or other methods of raising money are adopted, and the activities of the Association regulated according to the sums involved, the budget can be easily balanced during the year.

The auditor's reports follow:

April 29, 1944.

Dr. S. E. Thompson, President,
Texas Memorial Medical Library Association,
Kerrville, Texas.
Dear Sir:

We have examined the accounting records of the TEXAS MEMORIAL MEDICAL LIBRARY ASSOCIATION for the fiscal year from April 24, 1943, to April 24, 1944.

Statement of cash receipts and disbursements of said Association for the period reviewed is as follows:

Cash on Deposit—April 24, 1943		$ 133.45
Receipts:		
Dr. Martin Junius Taylor Fund	$1,000.00	
Dr. and Mrs. Wm. Thomas Carter Memorial Fund	1,000.00	
Income from Investments:		
Tarrant County Building & Loan Association (restricted to use for Pediatric purposes)	32.50	
Equitable and Mutual Building & Loan Associations	65.00	
U. S. Savings Bonds, Series "G"	75.00	2,172.50
		$2,305.95

Disbursements:		
Purchase of U. S. Savings Bonds, Series "G," as investments of Dr. Martin Junius Taylor Fund and Dr. and Mrs. Wm. Thomas Carter Memorial Fund ($1,000.00 each)	$2,000.00	
Remittance to State Medical Association of Texas, for the use and benefit of the library of said Association	209.13	2,209.13
Cash on Deposit—April 24, 1944		$ 96.82

Assets and capital of the Association as of April 24, 1944, were as follows:

ASSETS

Cash on Deposit		$ 96.82
Investments:		
Shares of Building and Loan Associations	$3,000.00	
U. S. Savings Bonds, Series "G"	4,000.00	7,000.00
		$7,096.82

CAPITAL

Dr. and Mrs. Sam E. Thompson Memorial Fund	$1,000.00
Warner E. Williams Memorial Fund	1,000.00
Texas Pediatric Society Library Endowment Fund	1,000.00
Hattie Hunt Memorial Fund	1,000.00
Dr. and Mrs. N. D. Buie Fund	1,000.00
Dr. Martin Junius Taylor Fund	1,000.00
Dr. and Mrs. Wm. Thomas Carter Memorial Fund	1,000.00
Undistributed Income	96.82
	$7,096.82

The terms of the above funds provide that the income therefrom shall be applied for the use and benefit of libraries maintained and operated by the State Medical Association of Texas. Income from the Texas Pediatric Society Library Endowment Fund is further restricted to use in connection with Pediatric service.

Yours very truly,

McCAMMON, MORRIS, PICKENS & MAYHEW.

April 29, 1944.

The Board of Trustees,
State Medical Association of Texas,
Fort Worth, Texas.

Gentlemen:

Pursuant to engagement we have audited the books of account of the STATE MEDICAL ASSOCIATION OF TEXAS for the period from April 24, 1943, to April 24, 1944, and submit herein our report containing the following statements and schedules:

Statement of Assets and Net Worth as of April 24, 1944.
Investments.
Analysis of Net Worth.
Condensed Summary of Income and Expense.
Income and Expense—Detailed (including comparison with budget).
Analysis of Expenses.
Proposed Budget for the year 1944-1945.

ASSETS AND NET WORTH

Supplementing the schedules submitted herein, we offer the following comments for your further information.

Investments, $64,446.26, as scheduled herein, were verified by correspondence with the State National Bank of Houston with respect to the Freeman and Culmore first mortgage notes held for collection by said bank, and by inspection of the other securities held in the Treasurer's safety deposit box at the Fort Worth National Bank. The following changes were effected in Investments during the past fiscal year:

Investments—April 24, 1943		$66,946.26
Additions:		
U. S. Savings Bonds, Series "G"		5,000.00
		$71,946.26
Principal Payments:		
Wm. R. Thompson, Jr., note paid in full	$5,000.00	
Partial payment on John H. Freeman notes	2,500.00	7,500.00
Investments—April 24, 1944		$64,446.26

Interest and dividends were collected in the aggregate amount of $3,307.30, or 5.13% of the principal sum.

Fixed Assets were increased by $210.20, consisting of additions to furniture, fixtures and office equipment.

OPERATIONS

Income from all sources was received by the Association in the amount of $60,519.59, and expenses totaling $57,400.88 were incurred, resulting in net income of $3,118.71.

A comparative recapitulation of the membership for the past two years is as follows:

	Year ended 4-24-44	4-23-43
Regular Members	3,469	4,245
Military Members	1,060	.....
Internes	20	23
Honorary Members	54	59
Emeritus Members	4	3
	4,607	4,330

In accordance with resolution of your House of Delegates in annual meeting in May, 1943, later approved by the Board of Trustees, the dues of military members are remitted. Such action was effective as to dues for the year 1943, and for subsequent years until contrary action is taken.

On account of the above-described classification of military members, the total number of paying members is expected to be decreased materially with respect to the year 1944. In the proposed budget submitted herein, we have estimated the paying membership at 3,300, with dues unchanged at $9.00 per member. A deficit in certain funds results, which would have to be met by applications from your surplus accumulations of prior years, referred to herein as net worth.

GENERAL

Fidelity bonds are carried on officers and employees of the Association as follows:

Dr. Holman Taylor, Secretary and Editor	$ 5,000.00
Dr. R. B. Anderson, Assistant Secretary-Editor	5,000.00
Dr. K. H. Beall, Treasurer	15,000.00
Miss Anna Keith, Bookkeeper	5,000.00

SCOPE OF AUDIT

In addition to the verification of assets described hereinbefore, we made routine substantiation of the regularity and accuracy of your records.

The recorded total of dues received was balanced against the membership roll. All receipts issued for payment of advertising accounts, income from investments, etc., were checked in detail against the

cash receipts record. Items of income from investments were compared with description of the investments; and income from journal advertising was verified by test check of the advertising appearing in the publication against charges to the advertisers' accounts.

Checks paid by the depository banks during the period under review were inspected, compared with the corresponding entries in the disbursements record, and the recorded totals proved by addition. Paid invoices were examined when further substantiation of disbursements was considered advisable.

Postings to the general ledger were test-checked, and other tests were made of the correctness of your general records.

Conclusion

Our examination reflected that all recorded cash receipts were satisfactorily accounted for, and that the financial affairs of the Association were properly administered during the year reviewed.

We are submitting a separate report on the Texas Memorial Medical Library Association, formed in 1940 for the purpose of providing moneys for the use and benefit of libraries maintained and operated by the State Medical Association of Texas. During the past year the Library Association reimbursed your Association in the amount of $209.13 for certain books and publications purchased by the latter.

In our opinion the accompanying statements, as disclosed by records examined, correctly reflect the financial condition of the State Medical Association of Texas as of April 24, 1944, and the results of operations for the fiscal year ended at that date.

Yours very truly,

McCammon, Morris, Pickens & Mayhew.

STATEMENT OF ASSETS AND NET WORTH

As of April 24, 1944

Assets

Cash on Hand and on Deposit		
On Hand—Secretary's Office	$ 80.00	
On Deposit—Secretary's Account	2,334.47	
On Deposit—Treasurer's Account	29,763.72	$ 32,178.19
Investments		
First Mortgage Loans	$ 24,500.00	
Stocks and Bonds—Cost	39,946.26	64,446.26
Other Assets		
Accounts Receivable—for Journal Advertising	$ 2,724.35	
Less: Credits for Prepaid Advertising	1,300.00	
	$ 1,424.35	
Less: Reserve for Uncollectible Accounts	100.00	
	$ 1,324.35	
Interest Receivable	67.50	1,391.85
Fixed Assets		
Real Estate—Land	$ 3,000.00	
Office Building	10,874.51	
Furniture and Fixtures	15,683.76	
	$ 29,558.27	
Less: Reserve for Depreciation	16,913.93	12,644.34
Deferred Expense		
Prepaid Annual Meeting Expense	$ 676.19	
Prepaid Insurance	666.38	
Utility Deposits	8.00	1,350.57
Total Assets		$112,011.21

Reserves and Net Worth

Reserves		
Unearned Dues:		
Association Fund	$ 12,708.00	
Journal Fund	9,705.00	
Medical Defense Fund	3,235.00	
Public Relations	3,177.00	
Unearned Journal Subscriptions — Non-Members	314.40	
Social Security and Withholding Tax	312.30	
Total Reserves		$ 29,451.70
Net Worth		
Association Fund	$ 16,114.60	
Journal Fund	14,282.36	
Medical Defense Fund	27,313.09	
Public Relations Fund	*223.48*	
Unappropriated Surplus	25,072.94	
Net Worth		82,559.51
Total Reserves and Net Worth		$112,011.21

INVESTMENTS

As of April 24, 1944

	Amount of Investments	Income 4-24-43 to 4-24-44
Real Estate First Mortgage Loans		
John H. Freeman Notes:		
2 Notes—$3,500.00 each Dated 5-15-42; due 5-15-45.	$ 7,000.00	
Interest—4% per annum, payable semi-annually		$ 280.00
1 Note	7,500.00	
Dated 11-1-43; due 11-1-47.		
Interest—4½% per annum, payable semi-annually		450.00
Above notes secured by first lien on property in Houston, Texas.		
March Culmore Notes:		
1 Note	$ 10,000.00	
Dated 6-6-43; due 6-6-48.		
Interest—4½% per annum, payable semi-annually		475.00
Secured by first lien on property in Houston, Texas.		
Total First Mortgage Loans	$ 24,500.00	$ 1,205.00
Other Secured Loans		
Wm. R. Thompson, Jr., Dated 5-15-37; paid 1-3-44; amount $5,000.00.		
Interest—5% per annum		408.30
Total Secured Loans	$ 24,500.00	$ 1,613.30
Stocks Owned		
Anaconda Copper Co.:		
86 Shares costing Par Value $50.00 per Share.	$ 5,348.75	$ 215.00
American Telephone & Telegraph Co.:		
114 Shares—Common—costing Par Value $100.00 per Share.	14,489.71	1,026.00
Total Stocks Owned	$ 19,838.46	$ 1,241.00
Bonds Owned		
Home Owners Loan Corporation:		
Series A 3% Bonds—par	$ 13,600.00	$ 408.00
*American Telephone & Telegraph Co.:		
$1,500.00 3% Temporary Debenture Bonds—cost	1,507.80	45.00
United States Savings Bond—Series G, 2½%—Maturity 1-1-1956	5,000.00	
Total Bonds Owned	20,107.80	453.00
Total Stocks and Bonds	39,946.26	1,694.00
TOTAL INVESTMENTS	$ 64,446.26	$ 3,307.30

ANALYSIS OF NET WORTH

April 24, 1944

Association Fund		
Net Worth—April 24, 1943		$16,626.67
Additional Dues Collected—Prior Years		12.00
Revenue—Current Year	$16,852.57	
Expense—Current Year	17,376.64	*524.07*
Net Worth—April 24, 1944		$16,114.60

*The above American Telephone & Telegraph Company 3% Temporary Debenture Bonds are exchangeable for either of the following:

(1) For $1,500.00 of 3% Definitive Debenture Bonds, without additional cash outlay; or

(2) For 15 shares of Common Stock of American Telephone & Telegraph Company, which conversion would require the cash payment by the Association of $600.00 ($40.00 per share).

The last interest coupon of the Temporary Debenture Bonds was dated September 1, 1942. Subsequent interest maturities have not been collected, but are set up herein as Interest Receivable. In order to collect such maturities of March 1, 1943, September 1, 1943, and March 1, 1944, it will be necessary to forward the bonds to the designated fiscal agent in New York for notation thereon of, and payment of, the interest.

Journal Fund			
Net Worth—April 24, 1943		$ 9,871.00	
Additional Dues Collected—Prior Years		9.00	
Bad Debts Collected		72.00	
Revenue—Current Year	$32,977.27		
Expenses—Current Year	28,646.91	4,330.36	
Net Worth—April 24, 1944			14,282.36
Medical Defense Fund			
Net Worth—April 24, 1943		$25,942.99	
Additional Dues Collected		3.00	
Revenue—Current Year	$ 3,543.00		
Expense—Current Year	2,175.90	1,367.10	
Net Worth—April 24, 1944			27,313.09
Public Relations Fund			
Net Worth—April 24, 1943		$ 2,828.20	
Additional Dues Collected		3.00	
Revenue—Current Year	$ 7,146.75		
Expense—Current Year	9,201.43	*2,054.68*	
Net Worth—April 24, 1944			*223.48*
Special Appropriations Fund (No transactions from April 24, 1943, to April 24, 1944.)			
Balance—April 24, 1944			25,072.94
TOTAL NET WORTH—April 24, 1944			$82,559.51

CONDENSED SUMMARY OF INCOME AND EXPENSE

April 24, 1943, to April 24, 1944

Income		
Association Fund	$16,852.57	
Journal Fund	32,977.27	
Medical Defense Fund	3,543.00	
Public Relations Fund	7,146.75	
Total Income		$60,519.59
Expense		
Association Fund	$17,376.64	
Journal Fund	28,646.91	
Medical Defense Fund	2,175.90	
Public Relations Fund	9,201.43	
Total Expense		57,400.88
TOTAL NET INCOME		$ 3,118.71
NET INCOME BY FUNDS:		
Association Fund	$ *524.07*	
Journal Fund	4,330.36	
Medical Defense Fund	1,367.10	
Public Relations Fund	*2,054.68*	
TOTAL NET INCOME	$ 3,118.71	

INCOME AND EXPENSE

April 24, 1943, to April 24, 1944

	Actual	Budget	Over	Under
Association Fund				
Income:				
Membership Dues	$13,876.00	$14,400.00	$	$ 524.00
Interest and Dividends	2,976.57	2,835.00	141.57	
	$16,852.57	$17,235.00	$	$ 382.43
Expense:				
Annual Meeting	$ 612.20	$ 500.00	$ 112.20	$
Officers	645.39	350.00	295.39	
Salaries	7,496.66	7,200.00	296.66	
Administration	2,449.65	2,500.00		50.35
Library	4,122.99	4,500.00		377.01
Procurement and Assignment	2,049.75	2,185.00		135.25
	$17,376.64	$17,235.00	$ 141.64	
Net Income—Association Fund	$ *524.07*			$ 524.07
Journal Fund				
Income:				
Membership Dues	$10,629.00	$10,800.00	$	$ 171.00
Non-Membership Subscriptions	148.17	100.00	48.17	
Sale of Journals	15.96		15.96	
Advertising	21,853.41	19,000.00	2,853.41	
Interest and Dividends	330.73	315.00	15.73	
	$32,977.27	$30,215.00	$ 2,762.27	
Expense:				
Printing and Distribution	$14,835.40	$16,000.00	$	$ 1,164.60
Salaries	11,383.63	12,250.00		866.37
Administration	2,427.88	1,965.00	462.88	
	$28,646.91	$30,215.00		$ 1,568.09
Net Income—Journal Fund	$ 4,330.36		$ 4,330.36	
Medical Defense Fund				
Income:				
Membership Dues	$ 3,543.00	$ 3,600.00	$	$ 57.00
	$ 3,543.00	$ 3,600.00	$	$ 57.00
Expense:				
Attorney Fees	$ 1,200.00	$ 2,600.00	$	$ 1,400.00
Salaries	960.00	960.00		
Administration	15.90	40.00		24.10
	$ 2,175.90	$ 3,600.00		1,424.10
Net Income—Medical Defense Fund	$ 1,367.10		$ 1,367.10	
Public Relations Fund				
Income:				
Membership Dues	$ 3,469.00	$ 3,600.00	$	$ 131.00
Special Contributions	3,677.75		3,677.75	
	$ 7,146.75	$ 3,600.00	$ 3,546.75	$
Expense:				
Legislative	$ 5,444.43	$ 525.00	$ 4,919.43	$
Salaries	3,670.50	3,000.00	670.50	
Administration	86.50	75.00	11.50	
	$ 9,201.43	$ 3,600.00	$ 5,601.43	
Net Income—Public Relations Fund	$ *2,054.68*			$ 2,054.68
Total Net Income	$ 3,118.71			

ANALYSIS OF EXPENSE

April 24, 1943, to April 24, 1944

ASSOCIATION FUND

Annual Meeting Expense		
Meeting Places—Sections and General	$ 1.50	
General and Staff Expense	378.65	
Convention Literature and Badges	258.15	
	$ 638.30	
Less: Income from Commercial Exhibits	26.10	$ 612.20
Officers' Expense		
Traveling, etc.		645.39
Salaries		
Secretary	$ 3,460.00	
Assistant Secretary	840.00	
Bookkeeper and Stenographers	3,196.66	7,496.66
Administration		
Stationery and Printing	$ 134.69	
Postage	225.22	
Telephone and Telegraph	264.97	
General Expense	219.20	
Binding	21.00	
Heat	86.76	
Light and Water	124.31	
Janitor Salary and Supplies	244.79	
Maintenance and Repairs	113.43	
Collection and Exchange	.65	
Depreciation—Building	271.86	
Depreciation—Furniture and Fixtures	467.36	
Taxes—Property	5.67	
Taxes—Social Security	124.54	
Audit, Bonds and Insurance	145.20	2,449.65
Library Expense		
Salaries	$ 2,829.00	
Janitor Service	216.00	
Telephone and Telegraph	126.48	
Utilities	210.91	
Supplies	143.41	
Postage and Express	9.62	
Books and Publications	697.26	
Audit and Insurance	73.10	
Taxes	5.66	
Miscellaneous	20.68	
	$ 4,332.12	
Less: Distribution of income from Texas Memorial Medical Library Association	209.13	$ 4,122.99

Other Expense		
Procurement and Assignment		2,049.75
Total Expense—Association Fund		$17,376.64

JOURNAL FUND

Cost of Printing and Distribution		
Printing	$12,262.82	
Engraving	752.57	
Mailing and Delivery	443.00	
Commissions and Discounts on Advertising	1,377.01	$14,835.40
Salaries		
Editor (Secretary)	$ 3,460.00	
Assistant Editor (Assistant Secretary)	4,160.00	
Bookkeeper and Stenographers	3,763.63	11,383.63
Administration		
Bad Debts	$ 41.50	
Stationery and Printing	141.95	
Telephone and Telegraph	133.64	
Office Postage	227.82	
Office Supplies and General Expense	258.78	
Heat	86.76	
Light and Water	124.33	
Janitor Salary and Supplies	244.76	
Maintenance and Repairs	113.70	
Depreciation—Building	271.86	
Depreciation—Furniture and Fixtures	467.36	
Taxes—Property	5.67	
Taxes—Social Security	190.80	
Auditor, Bonds and Insurance	118.95	$ 2,427.88
Total Expense—Journal Fund		$28,646.91

MEDICAL DEFENSE FUND

Attorney Fees		
Legal Service—Malpractice		$ 1,200.00
Salaries		
Secretary	$ 480.00	
Bookkeeper and Stenographer	480.00	960.00
Administration		
Taxes—Social Security		15.90
Total Expense—Medical Defense Fund		$ 2,175.90

PUBLIC RELATIONS FUND

Legislative Expense		
Telegrams and Printing	$ 133.82	
Medical Licensure Legislation	2,833.21	
National Legislation—Socialized Medicine	1,518.03	
Committee on Public Relations	959.37	5,444.43
Salaries		
Secretary	$ 600.00	
Director	3,000.00	
Stenographers	70.50	3,670.50
Administration		
Taxes—Social Security	$ 66.25	
Audit	8.75	
Distribution of Medical Service	11.50	86.50
Total Expense—Public Relations Fund		$ 9,201.43

PROPOSED BUDGET FOR FISCAL YEAR 1944-1945

Based on $9.00 Dues

BUDGET APPROPRIATION

	Income	Expense
Association Fund		
From Dues ($4.00 per member)	$13,200.00	
From Interest and Dividends	2,880.00	
To be applied to:		
Annual Meeting Expense		$ 750.00
Officers' Expense		650.00
Salaries		7,500.00
Administration		2,500.00
Library		4,500.00
Procurement and Assignment		2,050.00
	$16,080.00	$17,950.00
Journal Fund		
From Dues ($3.00 per member)	$ 9,900.00	
From Interest and Dividends	320.00	
From Journal Advertising	20,000.00	
From Other Sources—Non-Members	150.00	
To be applied to:		
Cost of Printing and Distribution		$15,000.00
Salaries		11,500.00
Administration		2,450.00
	$30,370.00	$28,950.00
Medical Defense Fund		
From Dues ($1.00 per member)	$ 3,300.00	
To be applied to:		
Attorney Fees, etc.		$ 1,200.00
Salaries		960.00
Administration		40.00
	$ 3,300.00	$ 2,200.00
Public Relations Fund		
From Dues ($1.00 per member)	$ 3,300.00	
To be applied to:		
Legislative Expense		$ 5,500.00
Salaries		3,600.00
Administration		85.00
	$ 3,300.00	$ 9,185.00
Total Estimated Income and Proposed Application	$53,050.00	$58,285.00
Estimated Income:		
Dues—3,300 Members	$29,700.00	
Journal Advertising	20,000.00	
Interest and Dividends	3,200.00	
Other Sources—Non-Members	150.00	
	$53,050.00	

Finally, we would extend to the staff of the Central Office our utmost appreciation of a year of devotion to their duties, and their accomplishment of purpose under great difficulties. We would particularly thank Dr. Anderson, who has rendered double service in the illness of Dr. Taylor, and to Dr. Taylor for carrying on under serious handicaps.

Respectfully submitted,

SAM E. THOMPSON, Chairman,
T. C. TERRELL, Secretary,
W. B. RUSS,
E. W. BERTNER,
J. B. MCKNIGHT.

Dr. Venable: The financial part of the report will be referred to the Reference Committee on Finance. The matters dealing with Public Relations will be referred to the Reference Committee on Reports of Officers and Committees. That part of the report pertaining to the Library is referred to the Reference Committee on Scientific Work.

The next order of business is the Report of the Board of Councilors.

(Vice-President Tom G. Glass then assumed the Chair.)

Dr. C. E. Scull, Chairman, then presented the Report of the Board of Councilors, as follows:

REPORT OF BOARD OF COUNCILORS

Written reports have been received by the Chairman from ten of the fifteen Councilors concerning affairs in their respective districts from which this report is compiled.

The Armed Services continue to draw on our membership and the doctors who are left have little time to do anything but work. However, all societies report activity in the campaign against socialized medicine. Public relation committees have sent speakers to most of the key cities of the state to discuss this subject.

Speakers have been chosen from each district, and have gone before the various luncheon clubs throughout the state. Approximately 200 clubs have been addressed. Radio programs have been arranged in some districts.

The councilors have reported throughout the state that they have not visited all county societies because of the gasoline shortage and the scarcity of doctors. However, they have all been keenly active, despite the fact that they are extremely busy.

This is the time of all times when those of us who are left at home should put our shoulders to the wheel and hold organized medicine in its rightful place, not to be dictated to by autocratic bureaucracy. We must keep medicine on the high plane

that it has always been for our comrades who have gone into the Service, when they return to their practices in civil life.

Respectfully submitted,
C. E. SCULL, Chairman.

Vice-President Glass: The Report of the Board of Councilors is referred to the Reference Committee on Reports of Officers and Committees.

Next is the Report of the Council on Medical Defense.

Dr. W. D. Jones, of Dallas, then presented the Report of the Council on Medical Defense, as follows:

REPORT OF COUNCIL ON MEDICAL DEFENSE

This is the thirty-third annual report of the Council. The last two or three years have been marked by little activity as far as malpractice suits against physicians in the state are concerned. However, it is quite likely that many suits have been filed, and that the defendants carry indemnity insurance and have neglected to report such cases to the Council on Medical Defense. For instance, the report of our General Attorney, Mr. C. T. Freeman, shows only one case filed since our last report. A threatened case in Dallas County has been filed since, and the chairman of the Council recently communicated with the physician concerned and got the information that the suit had been filed by the plaintiff in order to keep it from being barred by statute of limitation. This is a case referred to in our annual report last year, and the chairman prevented three different law firms from handling the case, at that time. The defendant has insurance with the Medical Protective Company, and their lawyer is looking after the case. The chairman is sure this case will never be tried.

It is difficult for the Council to determine whether or not we shall have increased activity after the war is over. Information we have obtained from the legal profession tends to indicate inactivity, because of government defense work, and the employee, under the Compensation Act, is not inclined to try to collect damages from his employer.

Our records show that we have thirteen active cases pending, and seven threatened.

The following is a recapitulation from the files in the office of the General Attorney, Judge C. T. Freeman:

Cases reported active in report of April 1, 1943		14
New cases filed since said report		2
Total		16
Suits disposed of since 1943 report	0	
Dropped because no information received for five years	3	
Total	3	3
Suits now carried as active and pending		13
Threatened suits carried in report of April 1, 1943	10	
Suits threatened since said report	0	
Total	10	
Suits dropped because no information received for five years	3	
Threatened suits now carried	7	
Suits reported as disposed of in report of April 1, 1943, which are finally dropped in this year's report (April 1, 1944) because no appeal has been reported in year's time		1

Reference to the report of the Auditor and Board of Trustees will show an increase of the funds of the Council.

W. D. JONES, Chairman,
HOLMAN TAYLOR, Secretary,
W. L. BAUGH,
W. A. KING,
A. P. HOWARD

Vice-President Glass: The report is referred to the Reference Committee on Finance.

Next is the Report of the Executive Council.

Secretary Taylor then presented the Report of the Executive Council, as follows:

REPORT OF THE EXECUTIVE COUNCIL

The report of the Executive Council last year recommended as follows:

"(1) That as heretofore the Council continue in close coöperation with the State Board of Medical Examiners, and the several other Governmental agencies and lay organizations which will recognize the true place of the medical profession in the scheme of things, and that it refrain from coöperation with groups, lay or professional, which refuse to do that. In extending this mandate, the House of Delegates should direct a realistic interpretation of the term "coöperation." In other words, the Council should be directed to distinguish between coöperation and obedience.

"(2) That opposition to movements leading to socialized medicine be continued, with due exercise of discretion in connection with war service.

"(3) That the Council continue without reservation to do its part in the war effort, in whatever particular. In extending this mandate, it should be intended that the Council use its discretion in making distinction between real war efforts and pseudo varieties thereof.

"(4) That the Council continue its present plans and policies in connection with medical licensure legislation. In extending this mandate, the House of Delegates should direct the Council to be guided in the matter of composition of measures and plan of coördination of the same largely by the State Association Committee on Medical Licensure, and, of course, by any decision of the House following report of that committee.

"(5) That the Council continue in coöperation with the State Board of Health, to the extent that such coöperation is practicable, and that efforts to secure the enactment of a modern, up-to-date Sanitary Code, be continued."

The report was approved and adopted by the House of Delegates. These recommendations, therefore, can be looked upon as mandates to the Executive Council from the House of Delegates.

It is of interest first of all to note the stress placed in Recommendation No. 1 upon the act of cooperation with other groups, lay or professional, and the distinction that is drawn between "coöperation" and "obedience," a distinction too often overlooked, and even by the medical profession, through whatsoever organization.

COOPERATION WITH THE STATE BOARD OF MEDICAL EXAMINERS.—The Council has stood ready through the past year to coöperate with the State Board of Medical Examiners if and when indicated. Beyond the routine of the ordinary, no matters of mutual interest to the two organizations have arisen, for which reason there has been no actual coöperation between the two groups. A difference between us had already arisen in the matter of medical legislation, which difference caused no particular trouble and required no official coöperative activities.

The matter of medical licensure, which has been before the Executive Council now for two or three years, has been in the hands of a special committee of this House, on medical licensure, even though the matters concerned have been discussed in joint meetings. This committee reported to the Executive Council at a meeting of the Council held July 13, 1943, as will be noted in the minutes of that meeting, published in the August number of the TEXAS STATE JOURNAL OF MEDICINE. The committee accounted for its activities in promoting legislation providing for a basic science law, a revised medical practice act for unlimited practitioners, a medical practice

act for limited practitioners, including osteopaths, chiropractors and the like, and annual registration of licensed practitioners of the healing art of whatsoever variety. The matter of procedures and policies in connection with medical legislation was left with the committee, with the request to report to the mid-winter meeting of the Council. The Chairman of the Committee advised the Council at its mid-winter meeting that an agreement had been reached in line with the policies of the Council in the matter heretofore, but that it had been agreed that all controversial matters within the medical profession be laid aside for the present, the economic situation and the war situation being of such greater importance as to justify the policy. The committee advised that it would make its report direct to the next meeting of the House of Delegates, hence no action was taken in this respect.

Cooperation with Government Agencies.—The Council early applied the first mandate referred to above, to negotiations with Governmental agencies in connection with medical and hospital services, in view of the difficulties before experienced in such negotiations. The Council concluded that, for one reason or another, these agencies for the most part failed to recognize the true place of the medical profession in the scheme of things medical. The following resolution was, therefore, adopted at the July meeting of the Council:

"*Whereas,* The medical profession as an organization is solicited and urged by various governmental agencies to enter into agreements and contracts sought to be made for the purpose of supplying hospital and medical services to certain specified groups of our people, and

"*Whereas,* We feel that all such agreements and contracts sought to be made by governmental agencies with the medical profession as an established organization would ultimately regiment medical services to the sick, if such contracts and agreements were agreed to and entered into by our profession as an organization; therefore,

"*Be It Resolved* by the Executive Council of the State Medical Association of Texas, in called meeting this day assembled.

"First: That the State Medical Association of Texas, its component societies, committees, bureaus, representatives and officers be advised and directed as such, not to sign or agree to any plan, agreement, or contract sought for the purpose of providing hospital and medical care for any designated group or groups.

"Second: That any physician as an individual is free to make any agreement or contract with any group, agency, or organization for the purpose of rendering his medical care and services to any persons designated and agreed upon. All fees and all terms of any contracts or agreements made and entered into to be decided and fixed by the physician as an individual and any agency or any authority which may be a party to the contract.

"Third: The medical profession never has, does not now and never will seek to escape any duties or obligations. We yield to no group when loyalty and devotion are called upon to protect the interest and welfare of our people."

It will be noted particularly, and the Council is insistent upon that, that the interdiction is against agreements and contracts, and not against mutual study of mutual problems; that the decision of the Council that no agreements or contracts covering the practice of medicine be made with governmental agencies concerning these activities, applies only to representatives of the State Medical Association or its constituent county medical societies, and not to the individual physician, and that the medical profession has never, does not now and will not hereafter seek to escape any obligations or responsibilities in the matter of the medical care of the people. With such an understanding between all concerned, the employment of physicians by any governmental agency will be on a par with the employment of physicians by individuals, thus seeking to evade regimentation and preserving the practice of medicine as a free enterprise. It has never been the policy of the medical profession to hold its members accountable ethically for differences in fees, except and unless fees are lowered to a point disastrous to adequate service and/or for the purpose of securing patronage on a basis other than presumed ability. There are many physicians who cannot accept employment either by individuals or groups of whatsoever sort, for one reason or another, mainly economic. Fees allowed for specified service may or may not be agreeable or even tolerable to the individual physician. Thus when a law is so framed as to fix fees for such services, or authorize governmental agencies to do so, there is set up a serious interference with the practice of medicine as a free enterprise, as applying to the entire profession, but not necessarily so to the individual physician. There are still agencies of the State Medical Association which can analyze and explain the economics and the ethics of employment under fixed regulations. It is imperative that the medical profession get away from maudlin sentiment, and from bureaucratic direction.

It is important, in this connection, that it be understood that the resolution above quoted is not retroactive. Present commitments and agreed to programs will thus be honored.

The Obstetric and Pediatric Care Program for Families of Enlisted Men, as set up by the Children's Bureau of the Federal Government very promptly fell within the purview of the resolution referred to above. It will be remembered that the Council on Medical Economics had previously reached an agreement with the Children's Bureau, through the State Health Department, covering this service, which it was felt was fair to all alike and productive of good results. Under the terms of subsequent appropriations to cover this service, conditions were set up which made the existing agreement inapplicable. The Council on Medical Economics had been negotiating for a change in the policies of the Children's Bureau covering the services concerned, but had gotten nowhere because of the terms of the appropriation measure concerned. A conference was held with the State Board of Health concerning the matter, but no agreement was reached on the controversial phases of the problem. Nothing came of it, and the medical profession was roundly criticized by illy informed people because of its refusal to coöperate in the program. As a matter of fact, the medical profession had not refused to cooperate in the program, and the above referred to resolution did not prevent rendition of the services concerned. Therefore, and in order to set the people right in the matter, the following resolutions were adopted by the Council at its December meeting:

"*Whereas,* There is apparently a need for the clarification of the position of the State Medical Association of Texas, with regard to the Children's Bureau Obstetric and Pediatric Care Program for Families of Enlisted Men; be it

"*Resolved,* In order that it may be clearly understood, that the State Medical Association of Texas is as interested as any group or Federal agency in seeing to it that the wives and babies of enlisted men receive necessary and adequate medical care; be it further

"*Resolved,* That the Executive Council of the State Medical Association of Texas, representing the medical profession of Texas, hereby declares that it does now and has from the beginning been

in full accord with any plan that the Federal Government may put into execution in Texas, that will insure that the wives of enlisted men receive allotments for medical, hospital, maternity and infant care, similar to the allotments already provided for the maintenance of dependents, provided arrangements with respect to fees are decided by mutual agreement between the soldier's wife and the physician of her choice; and be it further

"*Resolved*, That the position of the State Medical Association of Texas has been, is now, and will continue to be that no outside agency may influence or come between any patient and his free choice of his doctor nor direct the manner of the doctor's rendition of his services; and be it further

"*Resolved*, That every member of the State Medical Association of Texas, as is every licensed physician of Texas, has been, and still is, free as an individual, exercising the right of private enterprise, to render his professional service as and when he may so desire. We yield to no group when loyalty and devotion are called upon to protect the interest and welfare of our people."

It is clear that the purposes of the above quoted resolution are merely to prevent medical organizations from so prejudging terms and conditions of service to be rendered by individual physicians under governmental direction as to either coerce or inhibit the individual physician in dealing with the government in such matters, and to leave it to the individual physician as to what he shall do about it on his own. Nothing else is necessary. There are provisions of medical ethics for dealing with such cases as would be injurious to the public welfare in medical matters.

What the medical profession should really seek to bring about in such programs as that set up by the Children's Bureau for obstetric and pediatric care for families of enlisted men, or any other such service, is recognition of the fact that the doctor and his patient should enjoy the usual contractual relationship, and that any subsidy from the government should be looked upon as aid to the needy, and therefore should be paid to the needy for the purchase of such service as may be needed, exercising only nominal control over the matter as to persons employed or the terms of employment. The principal concern of the government in the matter should be that adequate and competent service is purchased, and the money not frittered away in the employment of quacks and cultists. Looking at the matter in this light it is clear why the above quoted resolution was adopted by the Council.

SOCIALIZED MEDICINE.—The problem of socialized medicine has assumed rather unexpected importance with the introduction in the Congress of the so-called Wagner-Murray-Dingell Bills, in which measures provisions are made for an all-out socialization of the practice of medicine. It is not the purpose of this Council to report in detail concerning these bills. That would be the function of our Committee on Legislation, and perhaps also the Council on Medical Economics. It is our purpose to advise here that we have taken under serious consideration the menace of socialized medicine as anticipated by the legislation in question, and have, with the support of the Board of Trustees, undertaken to do something about it.

First, the following resolution was adopted by the Council:

"*Whereas*, There has been introduced in the U. S. Senate a bill, by Senators Wagner and Murray, S. 1161, and a companion measure in the House of Representatives, by Representative Dingell, H. R. 2861, which bills are pending in Committees of the Senate and House, respectively; and

"*Whereas*, These bills contain provisions which, if enacted into law, would destroy the private practice of medicine in the United States and substitute therefor a system of politically dominated, bureaucratic medicine, regimenting the medical profession and hospitals of the United States; and

"*Whereas*, The present system of private practice in the United States has proved by every scientific yardstick, such as mortality rates and reduction of preventable diseases, to be the finest system of medical practice now existing in the world; and

"*Whereas*, The medical profession as the group scientifically qualified by education and training for solving all problems pertaining to medical care, has under study, and, in many places of the United States, where necessary, has in operation prepayment plans for medical service and hospitalization insurance plans for the low income group; and

"*Whereas*, It is believed that the enactment of the bills referred to here would cause medical service to the people of the United States to be far more expensive than the present system of private practice, and

"*Whereas*, It is believed that the bureaucratic, dictatorship plan of medical service provided for by the Wagner-Murray-Dingell bills would result in a greatly inferior quality of medical service to the people of the United States; therefore be it

"*Resolved*, That the Executive Council of the State Medical Association of Texas, the duly elected representative body of the ethical, reputable medical profession of Texas, assembled at San Antonio, Texas, December 13, 1943, declares its unqualified opposition to the medical features of the Wagner-Murray-Dingell bills in the Congress, and be it

"*Resolved*, That the Secretary of the State Medical Association of Texas be directed to advise the U. S. Senators from Texas, and Texas members of the House of Representatives in Congress, of the opposition of the State Medical Association of Texas to the passage of these bills because of the damaging influence that their enactment would have on the public health of the people of the United States; and to request the aid of Texas members of Congress in defeating this legislation; and be it further

"*Resolved*, That the Secretary be instructed to send copies of these resolutions to each Texas member of Congress, and to make them available to the public press of Texas."

It will be observed that opposition to the proposed legislation is based upon the harm the legislation would do to the public health, and not to the harm done the medical profession, except as it relates to the welfare of the public. It is clear that the best interests of the people will be served by a thoroughly educated and well trained medical profession, acting upon its own initiative and not under any system of regimentation which could possibly be devised, and the Secretary of the State Medical Association was directed to advise our Senators and Representatives in Congress that the passage of the bills in question would adversely affect the public health, and request their help in its defeat. It will also be noted that the State Secretary was directed to make the above quoted resolution available to the public press of the State of Texas.

Incidentally, all of this has been done, and apparently with good effect so far. However, much seems yet to be desired. It was appreciated that Congress is, or should be, responsive to the views and opinions of the public. Thus it immediately became evident that not only members of Congress, but the public as well, must be made to understand the situation, and what it would all mean. In addition to the activities of the central office of the Association, and with the acquiescence and financial support of the Board of Trustees, a new committee of the Association was set up, namely, the Committee on Public Relations. This committee was directed to set up an

office at the home of the President of the Association and the co-chairmen of the committee, San Antonio, and proceed immediately to accomplish the purposes in hand. The Trustees appropriated sufficient funds to meet the expenses of the committee for a period of six months, out of a depleted treasury. The members of our Association have been asked to make such contributions to the fund thus placed at the disposal of the committee as the individual members thereof felt justified in contributing. The Trustees will report further concerning this part of the problem. The progress of the voluntary fund has been noted in the editorial pages of the TEXAS STATE JOURNAL OF MEDICINE. Collections have been fairly satisfactory, but not startlingly so. Much more money is needed for this campaign than is now available, or ever can be made available from the funds of the State Medical Association, as at the present time raised. The Committee on Public Relations began immediately to prepare communications for the medical profession of the State and releases for the public press, in addition to the other publicity expedients not necessary to mention here. An experienced and competent publicity agency was employed, and is now busily engaged in planning a campaign of education for all in these important matters, and is fast getting into production.

The committee comprises the following members, which is an expansion over the small membership with which the work was begun: Drs. Merton M. Minter and Walter G. Stuck, Co-Chairmen, and Drs. W. A. Coole, Felix P. Miller, William Hibbits, Frank A. Selecman, Joe White, Allen T. Stewart, H. H. Cartwright, V. E. Schulze, W. A. Smith, Sam N. Key, O. B Kiel, Ruby Lowry, H. R. Dudgeon, and H. G. Heaney. This committee will make its own report to this House of Delegates.

It should be observed in this connection that so far the efforts to socialize the practice of medicine have not been involved in the war service of the medical profession; therefore there have been no restrictions in our activities because of anything of the sort, even though apparently socialized medicine is expected to eventuate primarily as a war measure, as was the case with prohibition during World War No. 1.

OUR WAR EFFORT has been continued throughout the year primarily and almost exclusively through the agency of the committee on Procurement and Assignment of physicians, which committee takes the place of the State Medical Association committee on Military Affairs. The services of this committee are rendered under the Federal War Manpower Commission, but actually by the medical profession. This committee will report directly to this House of Delegates.

COOPERATION WITH THE STATE BOARD OF HEALTH.—The Council has had very little, if any, opportunity for coöperation with the State Board of Health in any except the most perfunctory matters. As already reported, the Council conferred with the State Board of Health in connection with the Children's Bureau Program for the Obstetric and Pediatric care of families of enlisted men, and we found the State Board of Health quite sympathetic with our views, but quite impotent in the matter. Evidently, the State Board of Health approached the problem of coöperation in this service quite cautiously, not so much because of our views as because of certain technicalities of a legal or constitutional sort. The Board showed every willingness to listen to us in these matters, and the best of intentions towards cooperation between us. The Executive Council continues in its determination to secure the enactment of a modern, up-to-date sanitary code, as directed by the last House of Delegates.

MEDICAL ECONOMICS.—So many of the interim policies of the Association seemed to hinge on medical economics that the Chairman of the Council on Medical Economics was requested to render an account to the Executive Council of the recent activities of his Council and discuss the problem in general and in particular. This report was made at the July, 1943, meeting of the Executive Council. It was published in the August, 1943, number of the TEXAS STATE JOURNAL OF MEDICINE. It is one of the most comprehensive and informative reports of the sort this Council has seen. It should be read by all of our members. It is in line with similar reports made by the Council on Medical Economics to this House of Delegates.

Of particular interest to the Executive Council, has been the development of the Farm Security Administration ideas pertaining to the coöperative farmer groups for the program of medical service on a prepayment basis, as witness the trial balloons of Cass and Wheeler Counties, involving considerable government subsidy, not to mention other objectionable features. The Council on Medical Economics has been discussing this matter before the House of Delegates now for some time. It will report further to this House of Delegates.

THE LEGISLATIVE COMMITTEE holds membership on the Executive Council, and heretofore the Executive Council has so frequently acted in concert with the Legislative Committee that the report of that committee was for years included in the report of the Executive Council. The Legislative Committee has recently chosen to make its own report, independently of the Council, and will do so at this meeting of the House of Delegates. However, the Executive Council has conferred with the Legislative Committee, and, at the instance of its Chairman, Dr. J. H. Burleson, helped make decisions with regard to several important matters, all of which will be included in the anticipated report of the committee. A part of our legislative program has been developed under the direction of our Committee on Medical Licensure, to which group original jurisdiction in the matter has heretofore been granted by the House of Delegates. Even so, the Committee on Legislation has, as of necessity, coöperated with the Committee on Medical Licensure in all contacts with the legislature. Each group will make its own report at this meeting, as heretofore stated. It would serve no useful purpose for this Council to further discuss the matter. The Council can urge, only, that whatever decision is made by this House of Delegates as to legislative policy, be clearly and emphatically expressed, in order that the entire membership of the Association can rally to its support. There should be no division in any legislative program of the Association now for some time to come, if ever.

Perhaps it should be said that the Council has approved the intention of the Legislative Committee in the matter of coöperation with the Council on Medical Economics in the study of plans for the distribution of medical and hospital service; that the intention of the committee in the matter of developing and securing the passage of a measure providing for an up-to-date sanitary code, was approved, and that a communication from the Legislative Committee to a subcommittee of the House of Representatives and Congress disapproving of the Tolan bill, proposing to amend the U. S. Employees Compensation Act to permit chiropractors to treat the beneficiaries of that act, was commended, to mention only a few of the items considered jointly with the committee.

RENEWAL OF ANNUAL MEETINGS OF THE ASSOCIATION, as per recommendation of the Council on Scientific Work, has been warmly approved by the Council, and it has been so ordered. The Executive Council feels that it was wholly within the purview of its duties and functions to make such decision. It will be remembered that the decision to omit the meetings of the Scientific Sections last year, and

confine the annual meeting of that year to the House of Delegates, entirely, was because of war conditions, the which need not be specified here. The Council determined, after investigation through the Committee on Scientific Work and Conference with the Council, that the inhibiting conditions had been so modified as to permit, and, indeed, encourage the Association in directing that the Scientific Sections hold their meetings this year as usual, if upon a somewhat different basis, the differences being such as to avoid the principal reasons for the abandonment of these meetings last year. It was decided that if the Scientific Sections were grouped in accordance with their basic connections and interests, and distributed somewhat over the State, accommodations would be found ample, and attendance insured. The Council on Scientific Work recommended the following grouping and dates, which were approved by the Executive Council: Section on Public Health, Austin, April 19-20; Sections on Medicine, Eye, Ear, Nose and Throat, and Pediatrics, Fort Worth, April 20-21; Sections on Surgery, Obstetrics and Gynecology, Radiology and Physiotherapy, and Clinical Pathology, San Antonio, May 3-4, and the House of Delegates, Dallas, May 10-11. The Council on Scientific Work has developed the program accordingly, as is by now well known to all.

THE COUNCIL DECIDED ALSO, to approve of the idea of publishing in the JOURNAL the comments of those of our members who are in the service, upon any problems of the medical profession at home, particularly of civilian medical practice; that Councilors should continue to be elected by the House of Delegates rather than by the districts they serve; that several matters pertaining to the organization of representation in Washington by other than the American Medical Association, was referred, without comment, to our Delegates to the national body; that the advice of the Council on scientific work that the By-Laws should be so changed as to provide for the appointment of the Chairmen of Scientific Sections by the President of the Association, and of Secretaries of Scientific Sections by the President upon nomination of the said Chairman, was approved, if made in due legislative order.

The Council further agreed that the Central Office of the Association has from time to time been perhaps unfairly criticized; that the Central Office had not carried on any activities except at the direction of proper official groups of the Association; that instead of criticizing the Central Office, members should encourage those in charge to carry on its work in accordance with the directions of the House of Delegates, the Executive Council, and other such official groups, including its officers, and that the Central Office has doubtless made mistakes, but that when such mistakes are made the proper thing to do is to bring about their correction and not engage in iconoclastic criticism.

IT IS RECOMMENDED:

(1) That the Council be directed to continue the policy of the Association at present in force as relates to coöperation with organizations and groups interested in public health and welfare, including governmental agencies, and refraining from coöperation with any such which fail to recognize the proper place of the medical profession in connection with such matters, and under a realistic interpretation of the term "coöperation," in contradistinction to "obedience."

(2) That the Council continue to oppose movements leading to the socialization of medicine through whatsoever procedures, always in consideration of the proper demands of war service and along the lines of the resolution on the subject herein recited, and after the plans at the present time in effect, with such modification or elaboration as the Council or other authoritative and appropriate agencies may see fit to make.

(3) That the Council continue its unreserved coöperation in the war effort, making due distinction between real war effort and pseudo war effort.

(4) That the Council continue in support of the Committee on Medical Licensure in its plans for medical legislation, with the understanding that no controversial legislation of the sort be undertaken at the present time, except under emergency situations which may arise and which may jeopardize the interests of the public health.

(5) That the Council continue in coöperation with the State Board of Health, to the extent that such coöperation is practicable, and that efforts to secure the enactment of a modern, up-to-date sanitary code be continued.

(6) That the position of the Association in the matter of obstetric and pediatric care for families of enlisted men, as set out in the resolutions on the subject recited in this report, be continued.

(7) That the decision of the Council to hold the regular annual meeting this year, be approved.

Respectfully submitted,
C. S. VENABLE, Chairman,
HOLMAN TAYLOR, Secretary.

Vice-President Glass: The report is referred to the Reference Committee on Reports of Officers and Committees, with the exception of that portion which has reference to renewal of the annual meetings of the Association, which part is referred to the Reference Committee on Scientific Work.

The next order of business is the Report of the Legislative Committee.

Dr. J. H. Burleson, Chairman, stated that the Report of the Legislative Committee will be covered in a Joint Report made by the Committee on Legislation and the Council on Medical Economics.

Vice-President Glass: The next order of business is the Report of the Council on Scientific Work.

Dr. A. C. Scott, Chairman of the Council on Scientific Work, then presented the Report of the Council on Scientific Work, as follows:

REPORT OF COUNCIL ON SCIENTIFIC WORK

Again confronted with war conditions, the Council on Scientific Work has given serious consideration to the problem of the annual meeting of the State Medical Association. It will be remembered that the annual meeting last year comprised the meeting of the House of Delegates, only. Whether the same procedure should be followed this year remained a matter for decision by the Executive Council of the Association, with and upon the advice of the Council on Scientific Work. Following full discussion of the problem, the Council on Scientific Work decided to recommend to the Executive Council that meetings of the Scientific Sections of the Association be held this year, the meetings to be divided into groups and held in various cities in the State where satisfactory accommodations could be found. In the discussion of the proposal, the Council was joined by responsible officials and members of the Executive Council. Ultimately, the Executive Council approved the idea and recommended that the Council on Scientific Work develop the details and put them into execution. This was done, following conferences and encouragement of Section Officers to make the effort, which they apparently were pleased to do.

The Executive Council will report to this House of Delegates its action in the matter, in addition to which the members of the State Medical Association have been fully advised through the JOURNAL. As is well known by now, the following groups of sections, places of meetings, and dates were arranged:

Section on Public Health, Driskill Hotel, Austin, April 19-20.

Section on Medicine, Hotel Texas, Fort Worth, April 20-21.

Section on Pediatrics, Hotel Texas, Fort Worth, April 20-21.

Section on Eye, Ear, Nose and Throat, Hotel Texas, Fort Worth, April 20-21.

Section on Surgery, Gunter Hotel, San Antonio, May 3-4.

Section on Radiology & Physiotherapy, Gunter Hotel, San Antonio, May 3-4.

Section on Obstetrics & Gynecology, Gunter Hotel, San Antonio, May 3-4.

Section on Clinical Pathology, Gunter Hotel, San Antonio, May 3-4.

It may be said in this connection that the Austin and Fort Worth meetings have been held, and apparently were most satisfactory, indeed. While hotel accommodations were, as was expected, rather scarce, little or no complaint was heard in this connection. Only one night in a hotel was called for in any instance, which was an important consideration in making the arrangements for the meetings.

In an effort to meet criticisms that have frequently been heard in that connection, the Council on Scientific Work decided to request that the By-Laws of the Association be so amended as to provide for the appointment of secretaries of scientific sections, upon nominations of selected chairmen thereof. The purpose of the idea is apparent. The chairman and secretary of a scientific section must work together intimately, and should be so located as to be able to do so. Under the present arrangement it all too frequently happens that one of the officers of a scientific section does practically all of the work. We consulted the Executive Council in the matter, and received the approval of the idea by that body, and direction to frame the amendment in this report. Therefore, the chairman of the Council on Scientific work, who is a delegate, respectfully submits the following amendment to the By-Laws:

Amend Section 3, Chapter X of the By Laws, page 25 of the January 1, 1941, edition of the Constitution and By-Laws, by inserting after the word "section", in line two of the section, the new sentence: "He shall appoint the secretary of each section upon the nomination of the chairman of the section."

With the amendment above suggested, the section will read as follows:

"Sec. 3. The President shall appoint a chairman and secretary for each section. He shall appoint the secretary of each section upon the nomination of the chairman of the section. It shall be the duty of said chairman and secretary to, in consultation with the Council on Scientific Work, prepare programs for their respective sections for the next annual session following their appointment. Their term of office shall conclude with the adjournment of the Annual Session for which their respective programs are compiled."

This Council desires to acknowledge its obligation to its ex-officio membership, particularly the section officers. The entire group has striven earnestly to advance the cause of scientific medicine in the State of Texas, through the agency of this Council.

Respectfully submitted,
A. C. Scott, Chairman,
J. S. McCelvey,
Tom G. Glass,
David A. Todd,
Jack Daly.

(President C. S. Venable then resumed the Chair.)

President Venable: The Report of the Council on Scientific Work will be referred to the Reference Committee on Scintific Work.

President Venable: The Report of the Committee on Memorial Exercises.

Dr. John T. Moore then presented the Report of the Committee on Memorial Exercises, as follows:

REPORT OF COMMITTEE ON MEMORIAL EXERCISES

The war has hit the Memorial Exercises Committee. I never have felt that the war has bothered us very much, except we don't get beefsteak when we want it, and have to go without some other things. We have had no regular committee meetings, but an attempt has been made to formulate and submit a prgoram. Efforts to secure a speaker to deliver the memorial address has been without avail.

It has been suggested that I make the address, but I wouldn't want to put myself on the program, and I couldn't do justice to such an important occasion. If we are to call the roll of our departed brethren, I should not do less than pay the tribute they deserve.

I have the feeling that any doctor who has carried on in such a manner as to receive the good will and the esteem of his community and his fellow practitioners, should be paid all honor at the time of his passing. In this connection, I always think of the passing of a great man who lived over at the little town of Buffalo, in Texas, Dr. Sam R. Burroughs. If when I pass I can have the tribute paid me that was paid to this man, who was known as a country doctor, I would ask no higher honor. It was the most touching ceremony I ever witnessed. The State Medical Association had asked Dr. Cummings and me to represent the Past Presidents, and to attend the funeral services. People came in from ten, twenty, fifty and even hundreds of miles. They came on bicycles, afoot, in wagons, automobiles, and every other conceivable means of transportation, to pay tribute to this man. I had known Dr. Burroughs for many years. When I joined the Association he was among the first that I met. He was in that immortal group of Bacon Saunders, A. T. Wilson, J. E. Gilchrist, Inge and others who have now passed on. When I arose to say a few words about Dr. Burroughs, I was so overcome that I had to hestitate a little before beginning. But again I say that when a man has lived in a community, as did most of these to whom we pay tribute here, has been their financial adviser, their ministerial adviser, their doctor, and willing at any time to hear people who came to him with their troubles, to whom people could pay tribute as they did to this man, it is most touching, indeed.

And it would be my part here to pay this tribute to these who have passed on, many of whom I knew intimately, some of whom I did not know so well. But if such a service could be held in their communities as I saw there, it would be a tribute to anybody and I would rather receive the tribute that Sam R. Burroughs received than to have been the President of the United States of America. (Applause.)

President Venable: Dr. Anderson will read the names of those physicians, members and non-members, who have departed this life since our last Annual Meeting.

Dr. Anderson: Mr. President, there has been reported to the Office of the State Secretary during the past year the names of 148 physicians, both members and non-members, who have died. However, if any present have knowledge of any whose names are not here, I hope they will report them to the Secretary, in order that they may be included in the list which will be published in the June number of the Journal.

I shall first read the names of the deceased members, of which there are 77.

DECEASED MEMBERS—1943-1944

Allen, Dr. Frank West, Houston.
Anderson, Dr. Wm. B., Brownwood.
Aves, Dr. Chas. M., Houston.
Bailey, Dr. J. B., Clyde.
Baird, Capt. Lester W. (Mil.), Temple.
Barnes, Dr. Frank L., Houston.
Basanez, Dr. Fernando, Corpus Christi.
Bills, Dr. Elijah Cox, Quinlan.
Boggs, Dr. Eugene O. (Hon.), Spring.
Broussard, Dr. J. A., Port Arthur.
Brown, Dr. G. Van Amber, McAllen.
Brown, Dr. Walter T., Wallis.
Caldwell, Capt. Walter S. (Mil.), Kilgore.
Carrell, Dr. W. B., Dallas.
Chaffin, Dr. Justus B., San Angelo.
Cheatham, Dr. Thos. H., Fort Worth.
Clark, Dr. Lawrence E., Ennis.
Coopwood, Maj. Joseph B. (Mil.), Lockhart.
Cronin, Dr. Phillip Henry (Hon.), Houston.
Darracott, Dr. Joseph C., Marfa.
Davis, Dr. C. W., Waco.
Davis, Dr. Edwin, Fort Worth.
DeWitt, Dr. Robert E., Abilene.
Draper, Dr. Warren F., Jr., Paris.
Duke, Dr. Thos. B., Littlefield.
Eads, Dr. Galen L., Marshall.
Farmer, Dr. Wm. Carlton (Hon.), San Antonio.
Fox, Dr. Isar G., Harlingen.
Garrett, Dr. Franklin D., Denton.
Gibson, Dr. Albert D., Port Lavaca.
Guenther, Dr. John G., La Grange.
Hale, Dr. Chas. S., Cisco.
Hardin, Dr. Abell D., Dallas.
Hawley, Dr. S. DeZell, Atlanta.
Homan, Dr. R. B., El Paso.
Hopkins, Dr. Y. F., Taylor.
Hudson, Dr. S. E., Austin.
Hunt, Dr. Roy Elwin, Littlefield.
Kinell, Lt. Jack (Mil.), Houston.
Larendon, Dr. Geo. W. (Hon.), Kerrville.
Lemmon, Dr. Waldo N., Hereford.
Levins, Dr. James A., LaPorte.
McCloud, Dr. Ben L., Sr., Graford.
McCollum, Dr. Chas. H., Sr., Fort Worth.
McGarity, Dr. T. E., Como.
MacNelly, Dr. Chas. M., Weatherford.
Masters, Dr. Wallace J., Wichita Falls.
Minsch, Dr. W. A., Kerrville.
Moore, Maj. I. Sellers (Mil.), Ozona.
Murchison, Dr. Dan R., Dallas.
Naylor, Dr. Stephen D. (Hon.), Stephenville.
Nesbit, Dr. Wm. E., San Antonio.
Patton, Dr. Orlando, League City.
Piner, Dr. Frank E. (Hon.), Denton.
Ponton, Dr. Arvel R., Fort Worth.
Popplewell, Dr. A. L., Anton.
Puckett, Dr. Hal H., Alice.
Pullen, Dr. Wm. G., Corrigan.
Reemtsma, Dr. Wm. (Mil.), New Braunfels.
Riley, Dr. Edgar D. (Mil.), Terrell.
Rowe, Dr. Hill (Hon.), Denton.
Sansing, Dr. Clarence O., Houston.
Sayle, Dr. W. F., Commerce.
Schmid, Dr. Raymond J., New Ulm.
Shanks, Dr. Robert C., Grand Prairie.
Shivers, Dr. Ernest E., Lexington.
Swonger, Dr. J. Boyd, Beaumont.
Thomasson, Dr. Gus W., Jr., Dallas.
Underwood, Dr. S. J., Hale Center.
Wassell, Dr. George K., Dallas.
Watts, Dr. Samuel A., Marlin.
West, Dr. Warren F. (Hon.), Waxahachie.
White, Dr. Wm. T., Dallas.
Wilbanks, Dr. James G., Amarillo.
Williams, Dr. E. C., Collinsville.
Wilson, Dr. Winfred, Memphis.
Wray, Dr. P. C., Breckenridge.
Young, Dr. Francis A., Montgomery.
Zeigler, Dr. B. A., Shamrock.

There are 71 non-members listed as deceased. Many of these had been members of the Association during their lifetimes. They were simply non-members at the time of their deaths.

DECEASED NON-MEMBERS—1943-1944

Andrews, Dr. Varney, Floydada.
Arwood, Dr. J. A., Anson.
Aur, Dr. H. Edward, Stamford.
Barrell, Dr. Chas. O., Houston.
Beakley, Dr. B. B., Melvin.
Beverly, Dr. A. F., Austin.
Bickham, Dr. W. S., Paint Rock.
Brewer, Dr. Thos. C., Dallas.
Callen, Dr. Wm. P., Port Neches.
Coble, Dr. R. L., Bangs.
Collins, Dr. W. D., Comanche.
Cone, Dr. Frank (Mil.), Houston.
Connally, Dr. W. P., McGregor.
Cousins, Dr. R. D., Beaumont.
Daniel, Dr. Wm. A., Leggett.
Dean, Dr. J. J., Waco.
Dial, Dr. J. C., Abilene.
Dodd, Dr. J. A. Nash.
Donges, Dr. Henry E., Uvalde.
Flaniken, Dr. B. D., Vernon.
Flynn, Dr. Chas. W., Dallas.
Fox, Dr. Paul H., North Pleasanton.
Gambrell, Col. James H., El Paso.
Graves, Dr. Amos Maverick, San Antonio.
Graves, Dr. Richard W., Hutchins.
Greever, Dr. Sneed A., Sadler.
Haley, Dr. Chas. R., San Augustine.
Hall, Dr. James D., Sanatorium.
Hammack, Dr. Robt. L., Kennedy.
Hampton, Dr. A. T., Oakwood.
Hargrove, Dr. C. R., Marshall.
Harper, Dr. Henry W., Austin.
Harris, Dr. F. M., Sabinal.
Harris, Dr. Robt. A., Winnsboro.
Harris, Dr. Robt. D., Fulshear.
Hayes, Dr. Marshall A., Lott.
Ibarra, Jesus D., San Antonio.
Ippolito, Dr. Vincent, Beaumont.
Jones, Dr. O. Lee, Fort Worth.
Lacy, Dr. Wm. S., Jacksonville.
Law, Dr. Chas. B., Mineral Wells.
Lee, Dr. F. L., Ben Wheeler.
Lee, Dr. Robt. R., Sipe Springs.
Leslie, Dr. A. C., Snyder.
Leverett, Janadas L., Paris.
Lipscomb, Dr. Chas. D., Quitman.
Love, Dr. Arthur S., Ballinger.
McBeth, Dr. Chas. A., Utopia.
McCoy, Dr. Oscar J., Rosebud.
McNew, Dr. Joseph F., Farmersville.
Markowitz, Capt. Allen E. (Mil.), Abilene.
May, Dr. Olin, Lubbock.
Miller, Dr. James R., Stowell.
Paine, Dr. Walter H., Sealy.
Peck, Dr. Walter May, Dallas.
Ragan, Dr. J. B., Colorado.
Ray, Dr. Robeet Lee, Sipe Springs.
Ringo, Dr. James M., Houston.
Robertson, Dr. Randolph, Cross Plains.
Rumph, Dr. E. P., Quitaque.
Scarborough, Dr. Walter E., Avery.
Schaub, Dr. Gustavus A., Earth.
Schoolfield, Dr. Henry F., Memphis.
Shaw, Dr. Marshall, J., Plainview.
Smith, Dr. Robt. B., Denton.
Spilman, Dr. Edwin B., Claude.
Spruiell, Dr. Sam H., Gouldbusk.
Still, Dr. James M., Dallas.

Taylor, Dr. W. B. Crockett.
Tyson, Dr. Wm. S., New Boston.
Veal, Dr. George T., Fabens.
Wilson, Dr. Hugh N., Montague.
Wright, Dr. Asa, Marlin.
Yeary, Dr. David M., Farmersville.

President Venable: In memory of our friends and associates who have passed on, I ask you to stand for a moment.

(The House of Delegates then stood in silent tribute.)

President Venable: The report of the Committee on Memorial Exercises will be referred to the Reference Committee on Reports of Officers and Committees. We will next have the report of the Council on Medical Economics.

Dr. C. C. Cody, Chairman of the Council on Medical Economics then presented the report of the Council on Medical Economics, as follows:

REPORT OF COUNCIL ON MEDICAL ECONOMICS

The House of Delegates at its last session endorsed the activities of the Council on Medical Economics and issued instructions that the previous work be continued with the State Department of Public Welfare, the State Board of Health, the Farm Security Administration and other organizations. These instructions have not been carried out by the Council. The reason for the Council's failure to obey the instructions of the House of Delegates is that at a called meeting in Fort Worth on July 13, 1943, the Executive Council adopted the following resolution: "That the State Medical Association of Texas, its component societies, committees, bureaus, representatives and officers be advised and directed, as such, not to sign or agree to any plan, agreement, or contract sought for the purpose of providing hospital and medical care for any designated group or groups."

The House of Delegates is the policy making body of the State Medical Association, and in the interim the Executive Council exercises this function. Thus it is seen that contradictory instructions have been issued to the Council on Medical Economics by the two policy-making bodies of the Association. The Council on Medical Economics waives aside, in this instance, as futile and merely academic any discussion on fine parliamentary points as to the right of the Executive Council to revoke specific instructions of the House to a Council or Committee. The important point is that the Executive Council's instructions have been faithfully and sincerely obeyed by the Council on Medical Economics in order to preserve that spirit of harmony and unity among our members so absolutely necessary in dealing with many of the problems which now confront us. But this contradiction exists and should be removed by this House of Delegates in a re-statement of policy to be observed by the Council on Medical Economics during the ensuing year.

The report of the activities of the Council in the interval from the adjournment of the House of Delegates to July 13, is included in the minutes of the called meeting of the Executive Council, published in the TEXAS STATE JOURNAL OF MEDICINE 39:254-258, August, 1943, and is herewith made a part of this report.

PREPAYMENT PLANS

The President requested the Council to make a comprehensive investigation of the so-called prepayment plans adopted by the various constituent State Medical Associations with the object of making an appropriate recommendation for the consideration of the House of Delegates. Over ten State Associations and approximately 300 county medical societies and business organizations have prepayment plans. It would probably be no exaggeration to say that every State Medical Association has conducted more or less extensive investigations of the feasibility of initiating a prepayment plan for the distribution of medical care. It seems equally certain that a majority of the State Associations have taken definite stands on this question. As is to be expected, the actions so taken have greatly varied. Minnesota and Wisconsin have found no demand for a statewide prepayment service. In New York, there are no legal provisions for a statewide service; so a number of prepayment plans are in operation covering groups of counties, or several organizations in densely populated areas. Thus, in New York City there have been six different prepayment services which now seem to be in the process of consolidation and affiliation with similar plans for hospitalization. In other states, such as Colorado, the plans have matured and have been adopted, but have not been placed in actual operation. In Texas a prepayment plan was approved, an enabling act prepared, introduced in the Legislature and died on the calendar, a situation undoubtedly experienced by several other State Associations. There may be some significance in the observation that a greater demand seems evident in highly industrialized areas than in the rural.

The statewide prepayment plans in general terms have a common pattern of organization and purpose but differ in such details as benefits and premiums or dues. They are all non-profit corporations, all are under the supervision of the insurance departments of their respective states, all have doctors of medicine as a majority of the directors or trustees, and all have close affiliation with their respective State Medical Associations. The primary purpose of all of the prepayment plans is to render adequate medical care to the so-called low income group. As is to be expected, the definition of "low income" varies greatly from state to state. In one state, the upper limit of a low income is fixed at $3,000 per annum, which even in these times of high wages hardly seems applicable to conditions in Texas.

The benefits to the policy-holders, members or subscribers—as they are variously called in the different corporations—may be grouped under two general headings: first, comprehensive medical service and, second, surgical and obstetrical service. Comprehensive medical service includes general practitioner and specialist care, x-ray and clinical laboratory services. The surgical and obstetrical service includes the care of the general surgeon and of other surgical specialists and obstetrical care. At present there is a distinct trend to the surgical and obstetrical service with diagnostic procedures and the addition of prepayment plan of hospitalization. The reason for this is the experience that the large majority of families can handle the usual intercurrent, uncomplicated illnesses and contagious diseases of childhood without financial strain, but are unable to cope with a serious surgical emergency. The premium for the surgical and obstetrical service is materially less than that for the comprehensive medical service. But it should be emphasized that every one of these prepayment plans draws a subsidy from private practice by the favorite device of excluding from its benefits such diseases as mental and nervous, venereal, diabetes, tuberculosis, drug addiction, *et cetera.*

The proposed compensation as set up in the fee schedules may be assumed to be satisfactory to the doctors concerned. The premiums paid by the policy-holders seem to be uniformly less than those called for in the Council's agreement with the FSA. The Council has no official data on the financial

statement of any of these corporations, and can make no comments on the relative solvency of the various plans.

The Legislative Committee of the State Medical Association was also requested by the President to investigate the same subject and be prepared to present a prepayment plan for the distribution of medical care among the low income group to the House of Delegates. This Committee, under the able chairmanship of Dr. J. H. Burleson, after a careful consideration of various plans, has reached definite and sound conclusions. In addition, Dr. Burleson has had the clarity of vision and courage to make detailed recommendations. No better exposition of the plan can be made than Dr. Burleson's recommendations, as follows:

"(1) That this House of Delegates endorse the principles of surgical, diagnostic, and obstetrical coverage on the prepayment plans.

"(2) That we as a medical association accrue no financial responsibility for its operation.

"(3) That an operating corporation be formed composed only of members of the State Medical Association in good standing to cover surgical, diagnostic and obstetrical cases requiring hospital care.

"(4) This corporation shall be controlled by the trustees of the State Medical Association. The board of directors should be composed of the Board of Trustees of the State Medical Association; chairman of the Council on Medical Economics; chairman of the Committee on Legislation; chairman of the Board of Councilors, and the medical members of the board of Group Hospitalization. This board shall appoint a full-time medical director and the corporation shall be set up in conformity with the insurance laws of Texas.

"(5) That any member subscribing to organization stock shall be considered as a loan to the State Medical Association at 4 per cent interest and returnable to subscribing members as soon as the trustees think it safe for the corporation to do so. After the corporation becomes self-sustaining, stockholders who have furnished funds will be repaid and there will be no stockholders in the organization.

"(6) Any member of the State Medical Association may or may not, as he chooses, subscribe to stock in the corporation. He does not have to subscribe to stock to be a participating member, provided he chooses to participate in accordance with the plan.

"(7) Your committee purposely omits dealing with any details of a plan such as fees, etc., it being considered that it is first necessary to decide upon and adopt a plan, covering broad principles, which will have the endorsement of the State Medical Association. Plans will be worked out by your committee.

"(8) That this shall be a non-profit corporation, and if and when its surplus is sufficient to guarantee sound business, the remainder shall be used for the purpose of widening its coverage.

"(9) That the Board of Trustees, through its medical director, shall present to this House of Delegates once a year at its annual meeting a detailed financial statement."

Dr. Burleson has worked out and presented the general principles for a sound organization and a practical prepayment plan for the distribution of medical care to the low income group on a statewide basis. There remains, of course, the necessity for the application of these general principles to the scheme of organization, to the benefits of policyholders, to the compensation of doctors, to the relation of the operating corporation to the State Medical Association and more especially to the liability of the State Medical Association for claims against and the indebtedness of the operating corporation. Of course, a sound financing of the operating corporation may be expected to be difficult, particularly through the first three years.

A committee representing the Texas Hospital Association and the Group Hospital Service, Incorporated—the Blue Cross plan—and consisting of Mr. Tol Terrell of the Harris Memorial Hospital, Fort Worth, Mr. Lawrence Payne of the Baylor University Hospital, Dallas, and Mr. W. R. McBee, Administrator of the Group Hospital Service, Incorporated, has presented a prepayment plan to the State Medical Association of Texas.

The prepayment plan of this Committee is in the form of a preliminary proposal to the State Medical Association to serve as a basis for future study and negotiation. Several plans are presented in the Survey, but the plan selected for consideration here can best be integrated with the Burleson plan. In general terms, the proposal is that a non-profit corporation be organized and occupy a liaison position between the State Medical Association and the Blue Cross plan. The purpose of this is to provide a prepayment plan for the combined operation of hospitalization and medical service. The Blue Cross would receive 20 per cent of the premiums for medical service for the cost of selling the insurance and other administrative expense. The benefits to the policy holders consist of, at first, surgical, obstetrical and diagnostic services. The premiums suggested for this limited service are:

	Month	Year
Individual	$0.75	$ 9.00
Individual and spouse	1.50	18.00
Individual and entire family	1.75	21.00

The doctor's fee would be the same for the policy holder as that in private practice. The doctor credits the money received from the liaison corporation to the patient's account and the difference between this amount and the fee is paid by the patient. Differently expressed, the policy holder's financial benefit is in the form of an indemnity paid directly to the doctor by the liaison corporation. If the doctor's fee is larger than the indemnity, the patient pays this difference to the doctor. The amounts of indemnity for various services are in line with those of the commercial insurance companies. However, the members of the State Medical Association would underwrite the solvency of the liaison corporation by agreeing to accept any pro rata part of the indemnity in full settlement of the same. In fact, without the agreement of members of the State Medical Association to underwrite the solvency of the liaison corporation, it is quite doubtful that such a plan would be practical.

The Council on Medical Economics has been investigating for over six years all types of prepayment plans. It has also had the opportunity to observe the actual operation of a number of these. Some four years ago the Council became concerned with the development of a prepayment plan to be used by county medical societies at their option and had a part in the preparation of an Enabling Act later introduced to the Texas Legislature. Incidentally, the introduction of this Enabling Act to the Legislature served every practical purpose intended at that time; its failure of enactment was anticipated and had no importance.

As a result of this experience, the Council's approach to the present question is rather different from that of the Legislative Committee and the Committee of the Hospital Association and Blue Cross. In the first place, are the members of the State Medical Association ready for a prepayment plan on a statewide basis? The record certainly seems to demonstrate that they are not; for so recently as last July the Executive Council unanimously adopted a resolution the effect of which is to forbid any agreement on the part of officers and committees of the

State Association and of county medical societies to render medical service to any group or groups of persons. Of course, this resolution may be displaced; but in this event the fact remains that many of those who voted for the resolution in July will be of the same opinion still. This leads us to the second point, that our members are divided into two groups on prepayment plans, intermediary agents and similar questions. The line of division between them is not clear, probably because the groups have not been favored with a name. If all doctors were Methodists, one of these groups would long since have been called Fundamentalists and the other Modernists. For the Fundamentalists, the practice of medicine is almost a religion in which one of the chief tenets of its dogma is the fee-for-service. To the Modernists, the practice of medicine is merely an occupation and not a religious experience. The practical point of this is that a plan or a procedure be adopted which is sufficiently progressive almost to satisfy the Modernists but with not enough changes from our customs to fire the Fundamentalists with fanatical zeal to defend the outraged traditions of the medical profession. For be it remembered that the Fundamentalist maintains the stability and adds spiritual force to our profession. The third point is that of the intermediary agent. In private practice there are two parties, the patient and the doctor. But in any prepayment plan, there are always three parties, the patient, the doctor, and the association or corporation. This association or corporation is an intermediary agent between the patient and the physician and serves a useful function with each. This function is exactly the same whether the intermediary agent is controlled by the medical profession or by the laity. The mere fact that an intermediary agent is owned and controlled by doctors does not change or modify either its status or its function.

The State Medical Association has the duty and obligation to our fellow Texans constantly to improve medical service and with equal constancy to lower the costs of sickness and medical care. It is a matter of professional pride that our State Association has met these responsibilities with courage and efficiency. The State Association has encouraged medical schools and hospitals, and has been a powerful stimulus to its members in scientific attainments and advancements. There is no question that the State Association with its component county medical societies has been the most potent factor in medical progress in Texas. At the same time it has lowered the costs of sickness and medical care by leading the way in preventive medicine, by urging and attaining more efficient methods in preventive and therapeutic medicine, and by encouraging medical research. More efficient and effective methods in curative and preventive medicine have steadily lowered the costs of sickness and medical care for over forty years. It is a well established economic fact that the costs of services, farm commodities and manufactured articles can be reduced far more effectively by improvements in the efficiency of methods and technics than by decreasing wages or rates of pay. The practice of medicine is not an exception to this general economic rule.

The number of health and accident policies issued by casualty insurance companies have shown a large increase during the past eight years. Also, mutual health benefit associations have increased both in number and size of membership. It is quite probable that the Blue Cross plan with its phenomenal growth to over 13,000,000 policyholders has stimulated competition in this hitherto rather neglected field of casualty insurance. The condition now is that medical and surgical benefits in a wide variety of combinations are offered by well established casualty insurance companies and soundly organized mutual health associations to the so-called low income group as well as to anyone else. If the State Medical Association should offer through an operating corporation a prepayment plan for the medical care of the low income group, it would very quickly find out that it was not pioneering but had entered a well organized and very highly competitive field. It is axiomatic that the State Medical Association should not undertake or attempt to perform any function or to render any service that another organization or corporation can do as well.

The Council on Medical Economics doubts at this time the advisability of the State Medical Association underwriting an operating corporation sponsoring a prepayment plan for the low income group on a statewide basis. The Council is fully cognizant of the strong arguments in support of the contrary view. The Burleson plan is a sound, practical and excellent method. But are the members of the State Medical Association now ready for it? Can the Fundamentalists and Modernists unite on the proposition that the State Medical Association should now engage in the casualty insurance business? Will the Board of Trustees be willing to pledge, or be urged by many of our members to pledge, the financial resources of the State Medical Association to pay the expenses of organization, claims against indebtedness and possible liquidation of an operating corporation. The Blue Cross or Group Hospital Service plan can readily be integrated with the Burleson and, in addition, as a plan can undoubtedly be worked out on a sound practical basis under certain conditions. Again the same questions arise, and also why should the doctors agree to accept a discount on their fees in order to allow the State Medical Association to engage in the highly competitive field of one phase of the casualty insurance business? Medical knowledge and training are the doctor's property. How can the State Medical Association give away or encumber the property of its members without a provision in the Charter or By-Laws to that effect? The Council is not sniping or sharp-shooting at either of these plans, for each is excellent and can easily be integrated with the other. But we are asking questions that we cannot answer without raising issues so highly controversial as to interfere with the unity of our members so necessary to preserve just at this time.

The Council is certain that the State Medical Association has a distinct and specific service to perform in connection with prepayment and correlated plans that no other organization is prepared or qualified to do as well. This is that of protector or arbitrator for the policyholders, doctors, casualty insurance companies and mutual health associations. Most of the casualty insurance companies and mutual associations are reputable and soundly financed organizations desirous of carrying out their contracts if for no other reason than that of good business policy. But some of these companies are not so inclined. The phrase "Accepted by the State Medical Association of Texas" could have the same guaranty on policies as "Sterling" has on silver. It would protect the reputable companies or associations, policyholders and doctors against fradulent enterprises. The medical service interests of the so-called low income group carrying casualty insurance in any one of a variety of forms will sooner or later certainly need a spokesman. There should be a definite ratio between the indemnity for medical benefits paid by the insurance company and the doctor's fee. Also, efforts should be made to establish a custom that this ratio varies for different income levels. In certain ways, this is a new type of relationship for doctors and bad practices can readily arise and become entrenched. It is much easier to prevent these than

later to attempt to eradicate them. This can be done by open and frank discussion in the spirit that doctors are all on the same team instead of being competitors. The State Medical Association and the county medical societies can be far more effective in representing the interests of the public and the doctors in this instance as it has so many times in the past, than by acting as another competitor in the insurance business. It would be most inopportune to alienate the support and coöperation of a large group of natural enemies of socialized medicine, such as insurance companies are, just at the time when the State Medical Association is gathering its full strength in the fight against this menace. In short, let the State Medical Association write the prescriptions and let the insurance companies as druggists fill them. That the time has passed for the State Medical Association to be the physician and pharmacist in these prepayment plans is the advice of the Council on Medical Economics.

RECOMMENDATIONS

At the call of the President, the Legislative Committee and the Council on Medical Economics met in San Antonio on March 31, considered carefully prepared reports on prepayment plans and after thorough discussion took the following action:

"The Legislative Committee and the Council on Medical Economics jointly recommend:

"1. That the House of Delegates approve in principle the prepayment plans for medical care as conducted by corporations or by associations so long as conducted on an equitable and ethical basis.

"2. That the State Medical Association can better serve the interests of the public and the medical profession by acting as an arbiter and protector than by organizing and operating a prepayment plan corporation."

"It is further recommended by the Legislative Committee that this service of the State Medical Association be placed in the immediate charge of the Council on Medical Economics."

RIGHTS OF MEDICAL SOCIETIES

The question of the authority of the House of Delegates and of a County Medical Society to adopt reasonable regulations for the terms and conditions of employment of members by intermediary agents is certain to arise with increasing frequency. It is axiomatic that an organization has the right to adopt and enforce rules for the guidance and control of its members. It is still a moot question as to how far a medical organization may go in enforcing a mandatory motion affecting the employment of physicians in private practice. But such is not the case in the practice for intermediary agents. For the United States Supreme Court, in the case of the American Medical Association, *et al.* vs. Group Health, Inc., has stated the rule of conspiracy applicable to medical societies. A medical society has the right, to quote the opinion, when "acting only to protect its own organization, to regulate fair dealing among its members, to maintain and advance the standards of medical practice, and to adopt reasonable regulations and measures to these ends." The decision also defined the conditions under which members of medical organizations are protected by the Norris-LaGuardia Act. The Supreme Court opinion in this case clearly gives the State Association and county societies the right to adopt and to enforce reasonable regulations affecting the terms and conditions of employment of their members by intermediary agents.

The phenomenal development of prepayment plans within a few years of more than ten State Medical Associations and almost 300 county medical societies, demonstrated a demand for this type of service, and of equal importance provided for the control of physicians participating in these plans by organized medicine. The Supreme Court decision in the above mentioned case gives the State Associations and the county societies the same right to enforce reasonable regulations of the terms and conditions of the employment of their members by casualty insurance companies that obtain in the prepayment plans owned and controlled by themselves. In order to remove any question of authority or rights involved, the Council recommends the adoption of the following amendments to the Constitution and to the By-Laws, each almost identical to the other, one being applicable to the State Association and the other to county societies:

Amend Section 2, Article I of the Constitution, page 3 of the January 1, 1941, edition, by adding to the Section the following wording: "The Association shall have the right and the authority, through its proper agencies, when acting only in its protection, to regulate fair dealings among the members of the Association, and to maintain and advance the standards of medical practice, and to enact By-Laws regulating such matters."

Amend Chapter XV of the By-Laws, page 34 of the January 1, 1941, edition, by adding to the Chapter a new section, designated as Section 4, as follows:

"Section 4. County medical societies shall have the authority, when acting only to protect their organizations, to regulate fair dealings among their members, to maintain and advance the standards of medical practice, and to adopt reasonable By-Laws and measures to that end."

MEDICAL ECONOMIC STATISTICS

Medical economic statistics are needed today as never before. They are needed in the fight against socialized medicine. Economic data are quite necessary if the Council is satisfactorily to serve as arbiter and protector in the insurance plans. They can be secured only from the doctors. The Board of Trustees has asked the Council for an estimate of the cost of maintaining a statistical service. The Council is unwilling to recommend the expenditure of Association funds until a sufficient number of the members of the House of Delegates have volunteered to secure at least 600 doctors who agree to answer questionnaires. Will you help?

C. C. Cody, Chairman,
H. E. Griffin,
W. R. McWilliams.
W. F. Starley,
T. B. Bond,

Dr. Cody: I would like to present an addendum to this report.

ADDENDUM TO REPORT OF COUNCIL OF MEDICAL ECONOMICS

There are in general terms two types of medical practice, the so-called private practice and the intermediary practice. In private practice, one party is the patient and the other is the doctor; *i. e.*, two persons or principals are concerned. The second type of practice is that through intermediary agents, such as charity hospitals, railroad hospital associations, health companies, prepayment plans, and insurance companies.

The function of the intermediary agent is to supply the patient with a doctor, and the doctor with a patient. The intermediary agent is the "middle man" in the distribution of medical service by bringing the doctor and the patient together on mutually satisfactory terms. Three persons or principals are concerned in intermediary practice; the patient, the doctor and the intermediary agent. The essential difference between these two types of practice is that in private practice two principals are concerned, while in intermediary practice there are three prin-

cipals. It follows then that the methods to be employed in controlling or directing the distribution of medical service in these different types of practice need not necessarily be the same, but should probably be different themselves.

The Supreme Court decision in the case of the American Medical Association et al. vs. Group Health, Inc., as mentioned in our report has given important rights for the protection against exploitation of their organizations and members. Recognizing the essential difference between private practice and intermediary practice, and the importance and value of the Supreme Court decision, the Council recommends the following for the consideration and action of the House of Delegates.

That the State Medical Association of Texas, desiring to encourage the distribution of medical service, authorize its officers, committees, and component county societies to participate in the equitable and ethical distribution of medical service, so long as there is exploitation of neither patient nor doctor, but this shall not be interpreted as an endorsement or approval of any scheme for socialized medicine, or the encroachment by government agencies on the private practice of medicine.

Respectfully submitted,
C. C. Cody, Chairman,
H. E. Griffin,
W. R. McWilliams,
W. F. Starley,
T. B. Bond.

Dr. Cody: The President also asked me to read the Joint Report of the Legislative Committee and the Council on Medical Economics.

JOINT REPORT OF LEGISLATIVE COMMITTEE AND COUNCIL ON MEDICAL ECONOMICS

With Dr. C. S. Venable presiding, the Legislative Committee and Council on Medical Economics met March 31, 1944, at San Antonio, and from the deliberation of that meeting jointly recommend:

"1. That the House of Delegates approve in principle the prepayment plans for medical care as conducted by corporations or by associations so long as conducted on an equitable and ethical basis.

"2. That the State Medical Association can better serve the interests of the public and the medical profession by acting as an arbiter and protector than by organizing and operating a prepayment plan corporation."

"It is further recommended by the Legislative Committee that this service of the State Medical Association be placed in the immediate charge of the Council on Medical Economics."

C. S. Venable, President,
J. H. Burleson,
Chairman, Legislative Committee,
Claude C. Cody,
Chairman, Council Medical Economics.

Dr. E. W. Bertner, Chairman of the Committee on Cancer, then presented the Report of the Committee on Cancer, as follows:

REPORT OF COMMITTEE ON CANCER

Your Committee has met on several occasions during the past year, and as you probably know, the Chairman of the Committee is at present acting director the M. D. Anderson Hospital for Cancer Research, which is a State Hospital for the care of cancer cases.

This hospital was dedicated on February 17, with a rather elaborate program, which has been publicized in the Journal, with a large group of most interesting speakers present. We are at the present time operating on a very small scale. Hermann Hospital has made available twenty beds for our use for cancer patients, pending construction of the new intern and resident quarters of Hermann Hospital, the funds for which were given by the Anderson Foundation, to make available quarters at the present time being used for living accommodations for the interns and residents. This will give us probably twenty-five additional beds. We are operating, of course, with a very small staff. It is most difficult to get well trained people in this work at this time. It has been most difficult to find a man suitable to all concerned to assume the responsibilities of full-time director. I think that at this time I can report that we are about to extend an invitation to two men to join us as directors, one the director of the clinical program, and the other director of the research program. Both of them are younger men.

I have felt, as chairman of our Cancer Committee and acting director of the M. D. Anderson Hospital, that this is the logical way to build up the institution. The first thought was that we should go out and get some of the older men who are established in cancer work, but we found that the demands of these men were so great that in addition to costing much more money than they would be worth to us at this time, they would probably demoralize the medical profession of the state by the demands that they would make upon them in order to operate the institution according to their peculiar ideas. I say that in all fairness, and I expect any of us who would probably be associated with an institution of this kind for a long time would be pretty fixed in our ideas, and would want our administration in our declining years to be as easy as possible. Such younger men could come in and grow up with the profession of the state. Texas offers a tremendous field for this work. It is badly needed in the state, not only from the standpoint of education, but to make available clinical facilities for the large number of cancer cases that are being haphazardly treated due to inefficiency and lack of hospital facilities. At present we are accepting only absolutely indigent cases. As you know, with the limited number of beds, we can take care of only a very few cases, and we are trying to select these cases from the outlying districts, and not from the larger areas where facilities are now available for their care. And until we are allowed to build more buildings, I respectfully request the profession of the state to bear with us, and send us the early cases from the outlying districts that we feel that we can help.

We are not in a position to house patients who are in the terminal stages of cancer and can not accept them. If we did accept them, we certainly could not offer the necessary clinical facilities for those we hope to cure, nor could we offer facilities for research departments to attempt to work up the cases. So that until the war is over and we are permitted to build a large hospital, which is contemplated in the Medical Center in Houston, on the 134-acre site that has been set aside for the Medical Center, we will have to operate only with the small number of beds mentioned. The most that we hope to have is forty at any one time. However, our clinical facilities are such that we can handle a large number of ambulatory patients, provided housing facilities can be had for them. The difficulty in that respect is the same as any other large area—housing facilities are now being used by defense workers. Places that we do find are generally opposed to accepting cancer cases. So there are a few "rest homes" available for the purpose, but we have to ask the counties from which the patients come to supply the funds to house them, pending their admission to the hospital. We have no funds available for housing people in rest homes, and the like.

This is simply a report of progress. I hope that

within the next sixty days the permanent director will be named for the institution, and that this organization will get behind the program as a whole and help to develop something that we hope eventually will be a very, very big addition to the medical situation in this state. (Applause.)

President Venable: Dr. Bertner's report will take the place of the Report of the Cancer Committee, to be referred to the Reference Committee on Scientific Work.

(At 12:15 p. m., a recess was taken until 2:00 o'clock, at which time the House of Delegates was called to order by President Venable.)

AFTERNOON SESSION

Dr. F. P. Miller, Chairman of the Committee on Postgraduate Medical Education, then presented the Report of the Committee on Postgraduate Medical Education, as follows:

REPORT OF COMMITTEE ON POSTGRADUATE EDUCATION

We have no definite report. Everybody is so busy doing something else, that we haven't called any postgraduate medical education meeting. The Public Health Service is very busy. Most of our young men are in the armed forces, and they are certainly getting postgraduate courses there. We hope to resume activities as soon as the opportunity presents itself.

President Venable: Dr. Miller's report will be referred to the Reference Committee on Scientific Work.

Now, gentlemen, I have the great pleasure of presenting to you our old friend, our leader of medicine in Texas, who will present a review and a preview of the work that he has been doing in directing and operating the National Physicians' Committee—I almost said "under something," but Dr. Cary is never under anything any time or anywhere. He will show you the importance of Public Relations, the importance of understanding where we stand in the community, and what the community thinks of us, and what they expect of us in medicine. Dr. E. H. Cary. (Applause.)

Address of Dr. E. H. Cary

For ten years the medical profession has had to face the possibility of having thrust upon it the Federal bureaucratic control of the distribution of medical care. With each succeeding year this threat has become more imminent and more menacing.

There can be no question but that in the United States under our system of private distribution of medical care there has been provided more effective medical services—more widely distributed—than is to be found anywhere in the world. However, there are times when the facts are of less importance than the public's appraisal of the facts. Medical men have been practically unanimous in the opinions held by them in connection with this distribution of medical care, and there has been unshakable conviction as to its relative effectiveness.

There can be no question but that in the United States under our system of private distribution of medical care there has been provided more effective medical service—more widely distributed—than is to be found anywhere in the world. However, there are times when the facts are of less importance than the public's appraisal of the facts. Medical men have been practically unanimous in the opinions held by them in connection with this distribution of medical care, and there has been unshakable conviction as to its relative effectiveness.

However, there has not been any knowledge of the people's opinion in connection with these vital matters and this all important situation. It has been deemed essential that accurate information be provided.

The National Physicians' Committee, adopting the traditional medical method of scientific research, in June, 1943, engaged the services of the Opinion Research Corporation to make a pilot survey of public opinion in connection with:

1. The status of physicians in the community;
2. The adequacy of medical care;
3. Opinion on medical service plans;
4. On compulsory health insurance.

Preliminary findings of this pilot survey were made available on September 1, 1943. They were of such a nature and of such importance that steps were taken to extend this research effort on a national scale. This largest opinion research corporation was employed to make a nation-wide survey.

The pilot survey covered the period of time from July 1 to September 1, 1943. The actual interviewing for the national survey took place between November 1, 1943, and February 1, 1944. It should be kept in mind in any appraisal of the data resulting from the survey that at least a part of the findings are valuable only as they refer to current opinion. Fluctuations or changes may result over a period of weeks and certainly over a period of months. The efforts covered:

a. The general situation throughout the United States;
b. The attitude of the public and of participants in medical care plans in selected areas;
c. The opinion of physicians who were participating in medical care plans, or practicing in areas where a large percentage of the people had been provided with means for prepayment of medical care costs.

The data resulting from this nationwide effort and the regional effort were tabulated during the month of February and published in March, in the form of a report entitled:

Slide 1—The American People. What They Think About Doctors, Medical Care and Prepayment Plans.

Slide 2—The Opinion Research Corporation has, through experience, established a formula which practically guarantees the accuracy of final findings. In the case of the National Physicians Committee's opinion survey this formula was followed. After the prescribed number of interviews were taken, interviews were added equal to 45% of the original number.

Slide 3—Questions were asked on a definite basis of population classifications, 51% men and 49% women. Thirty per cent of these men and women were under 35 years of age; 20% were from 35 to 44 years of age; 41% were 45 years or older, and 10% were negroes and 90% whites.

Slide 4—These interviews were taken on the basis of: Farm residents, 23%; towns under 2,500, 18%; cities from 2,500 to 25,000, 16%; from 25,000 to 500,000, 23%; cities of 500,000 or over, 16%.

Every area in the United States was covered in the survey according to geographical division. 31.7% resided in the territory roughly defined as north of the Ohio River and east of the State of Ohio; 27% resided in the South in the region south of the Ohio River and including the states of Oklahoma and Texas.

The Midwest, embracing Ohio and territories north of the Ohio River and also the states Missouri, Kansas, Nebraska and the states to the north; 10% of the far West, taking in the territory of New Mexico, Arizona, Colorado, Idaho and the Pacific Coast States.

Slide 5—Within each area questions were asked of all classes of the population: Professional and semi-professional men, 9%; farmers and farm managers, 20%; proprietors and managers (except

farm), 9%; clerical sales, and kindred workers, 19%; craftsmen, foremen, etc., 11%; operatives and kindred workers, 13%; domestics, 2%; protective service workers, 2%; other service workers and laborers, 12%.

SLIDE 6—Opinion Research Corporation estimates that odds against error of more than 2% in the final findings are 250 to 1.

SLIDE 7—All of these people were asked, "When was the last time you saw a doctor?" Fifty-eight per cent of the people had consulted a doctor within a 12-month period. An additional 18% of the people, within a 24-month period. A total of 76% of all the people in the United States had consulted a physician within a period of 24 months. This means that a very large percentage of the total population had within the reasonable short period of two years consulted with their doctor.

SLIDE 8—They were asked, "During the last year, have you been sick in bed at home for more than one day?" It was found that only 33% of all the people had been sufficiently ill to be in bed for more than one day. Sixty-six per cent of the people had not been sick within a period of 12 months. Yet the previous slide showed that 58% had seen their doctor within one year. This indicates that many people consulted their physicians although they had not been sufficiently ill to remain at home for more than one day.

SLIDE 9—All of these people were asked, "Do you have a doctor you call regularly in case of illness in your family?" It was found that 79% of all the people in the United States had available what is generally known as a "family doctor."

SLIDE 10—They were asked, "Do you think of your doctor as an impersonal professional man, or would you say he has a personal interest in you and your "welfare?" It was found that out of every 100 people, 81—or 81 million out of 100 million—consider their doctor has a personal interest in their welfare.

SLIDE 11—63% of those who have a family doctor believe that a "personal interest" is an important factor in the treatment of disease.

SLIDE 12—76% of all the people in the United States would, if they were ill, call the same doctor who had previously treated them or a member of their respective families.

SLIDE 13—It was found on inquiry that 54% of all the people had at some time been patients in hospitals, and an additional 27% had had members of their families in hospitals.

SLIDE 14—All of this leads to the conclusion that the American people as a whole are deeply conscious of the value of personal relationship between the doctor and his patient. They properly appraise the value and effectiveness of individualized medical care. They desire and will demand the right to choose the physicians whom they think will have, first, medical knowledge and, second, a personal interest in them.

SLIDE 15—They were asked by areas, "Have you ever put off going to a doctor because of cost?" The answers vary somewhat according to area and population groups but it was found that on an average a relatively small percentage, approximately 25%, had at some time failed to call a doctor because of the cost involved.

SLIDE 16—They were asked, "Do you think anything might be done to make it easier for people to pay doctor or hospital bills?" That difficulty was experienced in meeting the cost of medical care was demonstrated through statements of 63 persons out of every 100—or 63% of the total population—that in their opinion something could be done to make it easier for people to pay doctor and hospital bills.

SLIDE 17—When asked what they thought might be done it was found that of those who "thought something could be done," 45% thought that prepaid medical care or installment plans for paying doctor and hospital bills would provide the most satisfactory solution. Only 8% answered that compulsory government insurance would provide a satisfactory solution.

SLIDE 18—When asked if they considered it necessary to provide a method of paying for medical care costs for ordinary illness or for unusual and/or prolonged illness, it was found that only 5% felt that the ordinary doctor-bills were an unnecessary burden. Fifty-four per cent felt that a method should be provided for meeting the costs of general illness and serious emergencies.

SLIDE 19—There is possibly some slight discrepancy appearing in the answer to the question, "Which method would you prefer—a plan where you pay in advance a certain amount each month or just pay whenever you are sick?" Forty-five per cent answered that a plan providing for monthly payments would be most satisfactory.

SLIDE 20—They were asked how much they would be willing to pay to provide insurance against the cost of medical care and hospital bills. Seventeen per cent indicated that they would be willing to pay $2.00 or more per month for themselves, and 27%, $2.00 or more per month for self and family.

SLIDE 21—When asked if they had heard of doctor-sponsored medical care plans, it was found that 45% of the people were familiar with such plans.

SLIDE 22—When all of the people were asked if they would approve or disapprove of such plans for prepayment medical care, 55%, or more than one half, of the total indicated that they would like to have available some such method.

SLIDE 23—All of this questioning led inevitably to the conclusion that the people of the United States have confidence in their doctors. They demand the right to choose their doctors. They consider charges reasonable. At times they experience difficulty in meeting bills for unusual or prolonged illness. A substantial percentage of all of the people have heard about plans of, or methods for insurance against the hazards of emergency illness. They desire to participate in such plans. There can be no question but that, as effective and as nearly adequate as our American medical care actually is, an economic problem is involved—the payment for medical care costs—that must be considered and met by the medical profession.

SLIDE 24—The question was asked, "Have you ever heard of a plan to increase social security taxes and have the federal government use the money for a medical and hospital insurance program?" It was found that only 21% were familiar with or understood these proposals.

SLIDE 25—They were asked, "Would you approve or disapprove of such a plan?" Of all the people, only 32% expressed approval; 42% definitely disapproved, and 26% stated they had no opinion.

SLIDE 26—When asked the further question, "Would you still approve if this meant increasing social security taxes to 6% (this question asked of the 32% that stated they would approve of a government plan), only 16% stated that even at this cost they would continue to approve. This indicates that a very small percentage of the total population would approve of such methods.

SLIDE 28—To further clarify this issue the people were asked, "Would you vote for or against the government's setting the fees doctors can charge for each type of service?" Only 33% of the people—

33 people out of each unit of 100—thought it would be desirable for the government to fix the fees that physicians may charge. Fifty-seven per cent of the people were definitely opposed.

SLIDE 29—They were asked if they would favor the government paying the expenses of medical students and the cost of running medical schools in the country. Only 29% of the people would favor such extension of government activity.

SLIDE 30—They were asked if they thought that under such conditions, with the government providing medical care, they would be able to call the doctor of their own choice. Only 16% of all the people indicated that they felt they would be able to have free choice of physicians. Seventy per cent of all the people were fully conscious of the fact that under such conditions choice of a doctor would be limited.

SLIDE 31—And of the 70%, only 11% thought that such a condition would be satisfactory to them.

SLIDE 32—Always the medical profession has had to face the problem of providing medical service for the indigent. People were asked whom they thought should assume responsibility for medical care for those who cannot afford to pay for doctors and hospitals. Seventy-five per cent of all the people felt that state, city or county government or community funds should be utilized for this purpose. Nineteen per cent of all the people felt that this should become the responsibility of a federal agency. This would indicate that an overwhelming majority of the American people feel that the local community should always and constantly take care of its own.

SLIDE 33—The research efforts of the National Physicians Committee lead to a reappraisal and a new understanding of another phase of prepayment medical care that has received little—possibly much too little—consideration. People were asked, "Does the firm you work for (your husband works for) provide any plan for paying the cost of serious illnesses?" And a second question, "Are you (is he) included in this plan?" It was found that 22% of all of the people employed by industry work for firms that provide some form of medical care, surgical cost and hospitalization insurance. Sixteen per cent of the people employed by industry take advantage of the plans that are offered.

SLIDE 34—41% of the people who are employed by companies or industrial concerns which do not provide any insurance state that they would be interested in having such a plan. Eighteen per cent of the people said they would not be interested. Fifteen per cent were not willing to express an opinion.

SLIDE 35—It was found that only 20% of all the people in the United States have some form of medical care or hospitalization insurance other than employe group coverage.

Data from which the foregoing slides were made were the result of national survey operations. After these data were gathered it was considered desirable, necessary, in fact, if conclusions of value were to be reached, that opinion be secured as to the satisfaction of participants in medical care plans.

SLIDE 36—Surveys were made of participants in medical service plans and surveys of opinion of the physicians in areas where plans were in operation.

SLIDE 37—These surveys were conducted in five geographical areas. Inquiries were made of participants in four definitely different types of medical care plan operations. Answers vary. It would seem to be on the basis of inconclusive data that the most important single factor in the satisfaction or dissatisfaction of participants is the period of time that the plans respectively have been in operation.

In these four areas participants were asked, "You probably have friends or relatives who don't belong to the plan. Do you think you are better off than they are because of the plan, or is there much difference?" Under the operation of type one, 96% of the people thought they were as well off or better off than their neighbors.

Under plan two, 94% of the people felt that they were as well off or better off than their neighbors. Under plan three, 56% of the people felt that they were as well off or better off than their neighbors. Under plan four, 61% of the people felt that they were as well off or better than their neighbors.

SLIDE 38—In all cases it was found that the charges were not excessive and were generally satisfactory.

Slide 39—These people were asked, "Which do you think would be better—for all companies to set up prepaid medical care plans, or for the national government to increase social security taxes to cover medical care expenses?"

In the plans which had been longest in operation, their opinions were predominantly in favor of voluntary insurance. This relative approval ranged from 39% as a minimum, to 78%.

SLIDE 40—In those areas where participants in medical care plans where interviewed, physicians were also interviewed as to their opinion of the value of these plans.

SLIDE 41—Physicians were asked, "Do you think that the general public around here is better off or worse off than it would be if these prepayment hospital or medical care plans weren't in operation?" The physicians in the first area answered: 76%, better off; 12%, about the same, or a total of 88% actually in favor of plan operations.

The physicians in the second area answered: 69%, better off; 21%, about the same, or a total of 90% actually in favor of plan operations.

SLIDE 42—They were asked, "Is it your impression that people covered by prepayment plans call the doctor more frequently or a little earlier in an illness than people not covered?" In area number one, 67% felt that the doctor was called more frequently and earlier than would otherwise have been the case. In area number two, 50% felt that the doctor was called more frequently and earlier than would otherwise have been the case.

SLIDE 43—The doctors were asked, "From what you have seen, do you think it would be a good thing or a bad thing if practically all industries in the nation set up prepayment medical care and hospital service plans for their employes?" Seventy-one per cent of those doctors felt that it would be a good thing for employers of industry to coöperate with their employes in providing insurance to cover medical care costs and hospitalization. Only 17% considered it would be a bad thing.

SLIDE 44—In area number one, 67% of the doctors felt that they were better off—that these plans were a benefit to them. In the second area, 50% of the doctors thought the physicians were better off and 39% noted little difference, or a total of 89% which would seem to favor such medical care plans.

SLIDE 45—On the basis of this actually factual data it can be now stated that a predominating majority of the people who participate in medical care plans approve them. They believe that they are better off than their neighbors who have no such protection. Over 50% of the doctors in the areas where such plans are now in operation say that they are as well off and the people are better off because of the operation of the plans. A substantial majority of these doctors state that they would favor all industries in the United States coöperating with the employes to provide prepayment medi-

cal care and hospitalization service plans. Doctors are opposed to the proposals of the Wagner-Murray-Dingell Bills.

SLIDE 46—To hurriedly summarize, factual information is now available indicating that of all groups in the United States the medical profession in all likelihood is the most highly esteemed in their respective communities; that the people do not want "political medical care," and they demand a method of easier payment of the cost of unusual and/or prolonged illness. All of the data that have been gathered and all of the evidence that has been assembled inevitably lead to this conclusion:

The issue of Federal political control of medical care will not be resolved until the people have been provided with a means for insurance against the hazards of prolonged illness and hospitalization.

SLIDE 47—This evidence has indicated an end, and pointed a responsibility that must be assumed by the physicians of this country. There is no panacea for this problem. There is no one plan that will meet all needs in all areas. However, it has been demonstrated that facilities are available and the essential need is for an heretofore unimagined extension of these facilities that have been developed and tested through use. The two most important possibilities are (a) Physician-sponsored medical care and surgical benefit plans; (b) Employer-employe coöperation in purchasing insurance from established insurance companies.

SLIDE 48—Research that has been carried forward by N. P. C. simultaneously with the Opinion Research efforts, reveals that at the present time more than 15,000 business and industrial concerns participate with employes in the purchase of insurance to cover: (a) Loss of wages through illness; (b) Life insurance; (c) Medical care and surgical costs; (d) Hospitalization; or a part of these.

In some instances the company pays all of the cost for employes and their dependents. In some instances the benefits apply to employes only. Some firms pay a part of the cost for employes or for the employes and their dependents. A reasonable "group insurance plan of this nature" will provide insurance against medical care and surgery costs and hospitalization at from 1/5 to 1/15 of the cost that would be entailed if the policies were individually purchased.

SLIDE 50—If the medical profession is to assume the responsibility that has been indicated there are certain essentials to the successful carrying out of an accepted program:

1. The support of every practicing physician must be enlisted.
2. The support of every county and state medical society is needed.
3. One hundred million people must be told—told over and over again—of the benefits and how they can be secured.

SLIDE 51—

4. Hundreds of insurance companies must be made aware of their responsibility, and of the unparalleled opportunity that is presented.
5. One hundred thousands employers must be sold on the advantages that will accrue through coöperating with employes to provide medical care, surgery and hospitalization insurance for workers and their dependents.
6. Continuing and exhaustive research is paramount.

SLIDE 52—All of this leads logically to the nature and the type of program that has been adopted from the standpoint of providing this all-important service for the people of the United States. The National Physicians Committee program breaks down into four operations:

1. Encourage the medical profession to active participation in the development of plans and the more general use of existing facilities to provide for easy payment of insurance against unusual or prolonged illness;

SLIDE 53—

2. Educate the people to the importance, nature and value of prepayment facilities (within the framework of principles approved by the medical profession), now available for meeting the cost of unusual illness;

SLIDE 54—

3. Investigate conditions relating to and inform industry concerning the principles underlying sound participation with employes in prepayment plans for meeting the cost of unusual or prolonged illness and hospitalization;

SLIDE 55—

4. Inform private insurance underwriters of the opportunity that is being offered through cooperation in nationwide efforts to provide group insurance policies for those needing or desiring insurance against the hazards of unusual illness.

SLIDE 56—Now, at the present time, approximately 25,000,000 people in the United States participate, on a group basis, in some type of program for prepayment of costs of medical care, surgery or hospitalization.

Forty million additional workers and their dependents need the protection provided by insurance covering medical care, surgery and hospitalization. The estimated cost of premiums exceeds one billion dollars annually. It is a gigantic undertaking.

SLIDE 57—The Challenge. The need is for movement forward on all fronts by all forces; to extend to all the people—100,000,000 people—the benefits that are now accruing to 25,000,000 people.

The case is crystal clear. The "know how" has been acquired. The coöperation of individual physicians and medical groups is asked to aid in achieving these vital objectives.

President Venable: We are all very grateful to Dr. Cary for this preview of the work that was done by the National Physicians' Committee. Our Public Relations Committee has put out a questionnaire. Many of you have received it. We have so far sent out about two-thirds of them.

President Venable then introduced Dr. Merton Minter, Chairman of the Public Relations Committee, who made the following remarks before presenting the formal report of the Committee:

REMARKS OF DR. MINTER

We always enjoy hearing from Dr. Cary. Certainly the work of the National Physicians' Committee, under the able guidance of Dr. Cary, has been marvelous. It has been a real contribution to the solving of the problem of medical care, and it is that type of contribution which is essential to the future of the medical profession in the United States.

I am reminded of the lieutenant who got married and went on his honeymoon. When his ten-day leave was about up, he wired his commanding officer, "It's wonderful down here. Request a five-day extension of leave." The commanding officer wired back, "It's wonderful anywhere. Come on back."

That is true of the medical profession. It's wonderful. But I think we are going to have to let a lot of other people know just how good it is or we may get into some rather serious difficulties. The program which the Public Relations Committee is to present to you this afternoon is something we feel we have worked out as carefully and as accurately as we could in the time allotted, and in the time which we could spend on it.

This program began with the realization that the public relations between the medical profession as a group and the general public, are very bad. People like their individual doctors. People like doctors in general, but there are a surprising number of people in this country who do not particularly care for doctors as a group. We are looked upon somewhat as a trust, and a closed organization. We are looked upon as people who are out for ourselves alone, and who are trying to get rich. All of us know what we give to the public, but the public does not always know it. Therefore, we felt that it might be desirable if proper public relations could be established through the newspapers, the radio, the pulpit, school teachers, clubs, service organizations, and by the use of any and all media through which the general public can be reached.

The immediate object of our plan was the defeat of the socialization of medicine, as proposed by the Wagner-Murray-Dingell bill. We now feel that the field of public relations in medicine is much broader than that; that it extends to all of the aspects of medical practice. We feel that the medical profession has too long neglected letting people know exactly where it stands.

Some few months ago, President Venable appointed Dr. Stuck and me, as a committee, to start working on this problem, to begin directing speakers, and sending out news releases to newspapers. The problem became very, very large, and complex. There was a great deal of correspondence attached to it. Many letters came and many speeches were made. From it all we learned some things. One of these, which I had known but the true extent of which I found at that time, was the antagonism of the press toward the medical profession as a group. The press, on the whole, is opposed to the Wagner bill, but it is not opposed to it because of the possible harm it may do doctors, but because of the general principles involved in socialization schemes which affect all groups of people.

We had a good many interesting comments from newspaper editors, and from some of the publishers. We found that doctors do not coöperate with them. They do not permit the use of their names. They do not advertise, and they try to keep other groups from advertising. When a doctor gets into trouble, he asks for the paper's support, and he expects it to be given to him. Yet he, and the other members of his profession, have consistently tried to keep out the chiropractors and the optometrists and the patent medicines, and all the other things from which the newspaper derives revenue. I say that our problem does not consist in going to the newspapers and giving them something to put in the paper. It is really a matter of winning their confidence and of showing them that we, as a professional group, are doing something which is worth while for the country. No newspaper, and no newspaper editor or publisher, is opposed to anything which is valuable to the country, but they will not engage in a conspiracy to publicize and propagandize the individual aspirations of any group or party.

Mr. Aniol gave me a story showing how the other side propagandizes. It might interest Houston doctors. It is from a little paper in New York, called "In Fact." It fairly blisters the A. M. A. and your committee, Dr. Cary, and says in part: "Throughout the nation the reactionary doctors are using their vast propaganda fund and the congressional lobby to try to defeat the public service measure. In one instance, at least, they are resorting to blackmail. In Houston, Texas, the Harris County Medical Association is trying to tax each of the 600 doctors $25 for the Washington lobby, which aims to scare Congressmen into killing the Wagner-Murray-Dingell bill. A Houston correspondent writes: 'A young local doctor has been warned that he would not be allowed to practice in Houston hospitals if he failed to contribute the $25. The collector told him that Harris County had to support the lobby 100 per cent. This young doctor explained that he had just opened his office and didn't have the money to spare. The collector waived that objection, saying Harris County Medical Association had created a special fund for the purpose of lending every doctor $25, to be paid off at any time, and without interest.'"

I cite that as a type of the malicious propaganda of people who are trying to berate the medical profession. We do not, of course, wish to resort to that sort of thing, but I do believe that it is very essential that we put before the public the facts of medical practice, of medical costs, and, as Dr. Venable said this morning, we must enter into the civic life of our community. We may have to enter more into politics, and see that those who are for us are elected to office. I think that it might interest you to know that Dr. Venable, Dr. Stuck and I, talked some time ago to Samuel Pettingill. He made us feel that doctors do not quite realize their political potentialities. Mr. Pettingill is quite well versed in politics, and is a very intelligent man. He told us that if he were running for Congress in any district, he would rather have 100 doctors on his side than any other hundred men in the district, excepting only the newspaper publishers and editors. He felt that 100 doctors could do more for him or against him if they really worked, than any other group of men. I think that it is fast becoming essential that we, as doctors, see to it that those who are really for our interests in a broad sense are actively supported and are in turn thanked when they support us. This is something in which I think we have failed.

The principal part of this program, the method of approach to this problem, is going to be presented by Mr. Aniol. He was employed by the committee as a paid professional lay public relations counsel. The job became entirely too large for a group of practitioners to handle, because none of us had the necessary knowledge or experience.

We recommend to the House of Delegates that the State Medical Association's by-laws be amended so that a standing committee on public relations be provided for, and that such committee be appointed by and be under the direction of the Board of Trustees. This action is deemed advisable, as any public relations program will of necessity involve the expenditure of considerable funds over which the Board of Trustees would have complete control. In addition, the continuity of purpose, objective, and effort through succeeding administrations would be thus insured. In other words, if we are going to pursue a policy of public relations such as we will present to you this afternoon, that policy is going to have to be carried out over a period of years. To do this, funds must be provided and they must be handled by a committee which cannot be changed from year to year, it being under the direct guidance of a permanent body, that is, the Board of Trustees.

A budget of the cost of these proposed operations has been submitted to the Board of Trustees, and is in the report of our committee.

The committee does not propose to enter into any active advertising campaign, but should something of unusual importance to the medical profession arise, we would like to have about $5,000 as a reserve for spot advertising, if and when it becomes necessary. A service fee for planning and directing the public relations program and operating it, including the cost of clerical help, mailing and preparing all of this material, *et cetera*, will be $6,500. This calls for a total budget of approximately $28,250. This money cannot be raised over a period of time with any degree of consistency, except

by increasing the dues of the Association. We would recommend, after our study of the matter, that the State Medical Association, either adopt the program in its entirety, or not adopt it at all. Either it should be done correctly and well, and be fully and adequately financed, or it should not be done at all. The only way we can do that is through an increase in dues.

We might add this: Doctors who are making considerably more money than factory workers or garment workers, pay a great deal less into their Association than they do.

Dr. Minter then presented the formal report of the Committee on Public Relations as published in the handbook, as follows:

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

Following the defensive action of the Executive Council of the State Medical Association, July 13, 1944, forbidding its component societies and committees to enter agreements with bureaucratic agencies and directing them to use all their strength in the prevention of the establishment of socialized medicine in Texas, so boldly and actively threatened by the proposed S. B. 1161 (Wagner Bill), all agencies of the Association at our command were mobilized to establish an offensive against this vicious legislation.

Editorials were published in each JOURNAL during the fall, outlining and directing our campaign, reprints were sent to all members, and folders prepared by N. P. C. were supplied each County Society for distribution to members, patients and groups. These, and many more activities were carried on by the already overloaded central office. The Councilors were called upon to select from their districts speakers to appear before luncheon clubs, Parent Teacher Associations, our Auxiliary Chapters, District and County Medical Societies, and other groups calling for an all out effort. Every member put his shoulder to the wheel, but it was soon seen that a special agency of coördination was needed because the established machinery of the Association, so competent in times of peace, was not equipped for an active offensive in times of war. For this reason, a Public Relations Committee was created, and Dr. Merton Minter and Dr. Walter G. Stuck of San Antonio, were appointed as co-chairmen, with Drs. Coole of Houston and Egbert of El Paso, as additional members. This was done at the mid-winter meeting of the Executive Council. An office was opened in San Antonio, with the approval of the Board of Trustees. Funds were supplied by the Board of Trustees, and voluntary contributions by the members of the Association were called for, with which to carry on.

This committee wrote and prepared many editorials, releases and abstracts, which were submitted to some 400 newspapers, and prepared speeches for the 180 odd speakers on the Speakers' Bureau. As is well known, all of our speakers and agencies have been on call, and have worked hard through the fall and spring.

Before March, however, it was obvious that we were responsible for the rapidly progressing and increasing duties and responsibilities beyond our ability and time, and yet the campaign was proving itself day by day to be more and more essential to the future of medicine in Texas. For this reason, we consulted a Mr. Freeman, who is a Public Relations counselor, who advised that we engage the full time services of a public relations agency to assume the various duties and direction of manner and mode of actions considered essential to meet our most urgent needs, namely, that of our understanding of the public, their attitude toward us and of their understanding of us and appreciation of what we stand for, of the sincerity of our effort to give to every man our best in medical care for every one in every walk of life, and causing them to understand that we cannot now and never will submit to being driven by overlords to be servient to their will when initiative, imagination, pride and freedom to think and search the truth are taken from us.

After careful consideration and investigation, we have employed the Public Relations Agency of Aniol and Auld, of San Antonio, to be directed always in proper ethical channels by our Committee, to assume and carry through the following proposed program.

The approach to this problem is not a great deal different from the selling job that might be necessary in connection with any other service or commodity. As we see the matter, there are two groups to be reached. One is the profession itself, and the other is the public.

With the shortage of doctors and a greater demand for medical service due to the increased earnings of the public, we have found, in conversation with some of the members of the profession, that even they are not as familiar as they should be with the political trend that is taking place; nor have they given much thought to the development of a plan to counteract the trend. The profession itself must be kept informed of existing conditions, and changes, the plan of the public relations program and just how they can individually do their part.

The public itself is the most important group to reach. They must be sold on the personal effects of Socialized Medicine, and the value of maintaining private medical practice. In our opinion, up to this time, the profession has taken too much of a defensive attitude, and stressed the effects of Socialized Medicine on the profession itself instead of the effect on the individual.

In any public relations program a critical analysis must be made of the group to be reached. In this case, this is the entire public, and some of the questions that we must find the answers to are these:

(1) What is the public attitude toward Socialized Medicine?

(2) Does the public really know what "Socialized Medicine" is? (Confusion resulting from use of phrase "Public Health").

(3) What is public attitude toward doctors?

(4) If the attitude is one of criticism, why?

(5) In what group do the critics of medicine or sympathizers of Socialized Medicine lie?

(a) What income level?

(b) What age level?

(c) Type, classification, race, vocation, etc.

(6) Is the criticism directed to the profession as a whole or the result of individual experiences?

(7) What steps are needed to best hold present friends (patients) of private medical practice, and to secure new friends?

(8) What is the attitude of the press? radio? labor? the clergy? teachers?

There are many ways to find the answers to these questions. One is through subscribing to clipping services, which will pass on to us every news story, editorial, advertisement, or publication of anything pertaining to the Wagner-Murray-Dingell Bill on Socialized Medicine. A public opinion survey in the different geographic areas of the state should also give us answers to many of our questions. And a survey should also be made among the doctors. The gathering of factual information in this manner, and other procedures that will be used, will enable us to more accurately as well as more economically, plan our program. A survey among the doctors will be conducted immediately.

The profession itself should be kept informed as to what is happening and being done, through semi-monthly news letters. These should be concise and factual reports that will take only a few minutes

reading time and should contain only matter very pertinent to the job being done.

Many different ways will be employed to reach the public itself. Some of these ideas should be put into immediate operation. Others are for future consideration and use.

Material will be designed to reach present patients, for here is the greatest army of loyal followers of private medical practice, and they should be cultivated to carry our story by word-of-mouth advertising to others. They can be reached through the office magazines, and through such things as posters (one of which the association has already issued), bill stuffers, pamphlets, etc.

Material will be designed to reach Government leaders and legislators—federal, state and local. They will be kept informed, so that they will not consider legislation affecting the profession without knowing our interests.

The press must be cultivated. Sympathetic editors will be sold on how the public relations office can supply quickly any data they need. Much of the press, at the present time, has the feeling that the medical profession has not been friendly to it. And it in turn is not very friendly to the medical profession.

The voice of the radio is a tremendous influence among the masses. Speakers should be made available, and tie-ups can be arranged on programs. Commentators should be made to understand our problems, so they can interpret them fairly to the public.

Many organized groups can be potent factors in helping us to do our job. Some of these groups will not be sympathetic to our cause because they have already developed socialization schemes in some form, or are thinking along such lines. Regardless of whether they are thinking for or against, they still must be reached and influenced. We have in mind such groups as Women's Clubs, Labor, Fraternal Organizations, P. T. A., Teachers, Farmers, Clergy, Consumer Groups and Coöperatives.

More attention should be given to the value of reaching school children, as they can freely and more effectively carry a story into the home than any other medium that might be used.

The Speakers Bureau idea should be expanded, and if possible speakers outside of the profession should be used to carry the story. A number of plans are being developed, and they will make the work of the Speakers Bureau more effective.

Our office will be organized to be ever alert as to where bad conditions are brewing, and have available plans to meet those situations. We will be prepared with the *how—when—where* data to anticipate opportunities.

Mr. Jeff Reese, who has been active as Public Relations Counselor with the Association for more than twenty-five years, will be assigned to work with this Committee in making personal contacts where and when needed.

At a meeting of this Committee April 1, 1944, at the Gunter Hotel in San Antonio, the following members were present: Dr. Merton Minter, San Antonio, chairman; Dr. Walter G. Stuck, San Antonio, co-chairman; Drs. William Hibbitts, Texarkana; H. R. Dudgeon, Waco; Sam N. Key, Austin; Ruby Lowry, Laredo; H. H. Cartwright, Breckenridge; Allen T. Stewart, Lubbock; Frank Haggard, San Antonio; Conn L. Milburn, San Antonio; Victor E. Schulze, San Angelo; Frank Selecman, Dallas, and Harry G. Heaney, Corpus Christi. Also present at the meeting were Dr. Charles S. Venable, San Antonio, president of the State Medical Association; Dr. S. E. Thompson, Kerrville, chairman of the Board of Trustees; Dr. W. B. Russ, San Antonio, member of the Board of Trustees; and Dr. R. B. Anderson, Fort Worth, assistant secretary of the Association.

The following resolution was passed at that time:

"It is recommended by this Committee on Public Relations of the State Medical Association of Texas that the By-Laws of the Association be amended so that a standing Committee on Public Relations be provided for, and that such a committee be appointed by and be under the direction of the Board of Trustees."

This action is deemed advisable, as any Public Relations program will of necessity involve the expenditure of considerable funds over which the Board of Trustees should have complete control and, further, the continuity of purpose, objective and effort through succeeding administrations should be insured.

A budget of the cost of these proposed operations has been submitted to the Board of Trustees, as follows:

Newsletter.—A terse, concise report of activities and trends in medical affairs, medical legislation and the work of the Public Relations Committee. Estimate cost of printing 4,000 copies each of 26 issues; of addressing same and postage	$ 6,000.00
News Material.—Printing and mailing one news story or feature weekly to approximately 650 Texas newspapers, occasionally accompanied by photographs or mats for illustrating the feature	$ 2,500.00
Health Column.—A weekly column to be supplied to any newspapers that agree to publish the column, discussing current health topics, answering questions most frequently referred to the association. Estimate cost of producing and mailing 200 stories weekly	$ 1,500.00
Speakers Bureau Material.—Producing charts and other material that can be used by Speakers Bureau	$ 1,000.00
Radio.—Fifteen minutes radio feature, "Your Doctor and Your Health," to be released once a week to radio stations which agree to run the feature. Cost of making master disc, processing and producing 52 programs and 10 pressings of each program, and shipping charges	$ 4,000.00
Stationery, Postage.—Miscellaneous mailing, correspondence	$ 1,000.00
Clipping Service.—A check on what publications are printing about the medical profession, about Socialized Medicine, medical legislation, etc.	$ 250.00
Telegrams and Long Distance Calls	$ 250.00
Travel Expense	$ 250.00
Reserve for Advertising.—A fund to be used for display advertising in the event any emergency develops	$ 5,000.00
Service Fee.—For planning and directing the Public Relations program	$ 6,500.00
Total	$28,250.00

Respectfully submitted,
MERTON MINTER, M. D., Chairman,
WALTER G. STUCK, M. D., Co-Chairman.

President Venable: Very fine. Gentlemen, this is Mr. Aniol, of our Public Relations Agency and Council, who will now put this demonstration on for Dr. Minter and his committee.

ADDRESS OF MR. CLAUDE ANIOL

The report of Drs. Minter and Stuck has very capably covered how important an organized public relations program can be for your profession. The organization of which I am a member was asked to work with your committee about seven or eight

weeks ago. Your problem was studied, and while our findings are not complete, a plan was recommended, and a great deal of work has already been done.

To facilitate the presentation of the steps in our plan, we have placed it on charts. This presentation was made before a meeting of your Public Relations Committee in San Antonio on April 1. For this meeting we have added several additional sheets.

All of us must today realize that we are living in a different world than the one of five, ten or fifteen years ago. The radio's fast transmission of news and picture by wire, along with the airplane, automobile and fast trains bring magazines and newspapers to millions of people quicker than ever before. Radio and public forums are bringing many controversial questions to public discussion and debate.

Through the medium of radio, a crackpot can reach millions where only a decade ago it would have been difficult to reach an audience of hundreds. All of this has had an untold effect on public opinion and thinking. Today, a family's imagination and knowledge extends much farther than the neighboring village.

Public opinion makes or breaks laws. It is a force that can make or blast the reputation of any person, institution, product or service. Public opinion can be influenced by the right public relations program.

A public relations plan should be designed to make more friends and fewer enemies. Public relations should not be regarded as a form of first aid to be applied only in time of trouble. It should be used as is preventive medicine.

Several months ago your profession, when threatened with the Wagner bill, started giving some thought to doing something about your public relations. In the menatime, you've done a lot of good in straightening out a lot of folks' thinking.

Although the Wagner-Murray-Dingell bill may be dead—the idea of some form of federalized medicine is not—and your job isn't finished.

Any public relations program you go into should be a continual program. It is true that the theme may change. The need may change. Changes that may come up in the form of legislation affecting people, or catastrophes that might hit the nations of the world, but it should be a continual program, year in and year out. If you approach it that way, your cost would be less, and your program will be a lot more effective than trying to mould public opinion over night to meet some emeregency situation.

Many of you probably saw the article Fulton Lewis wrote regarding the medical profession, and if you saw that article you recall that he was not particularly sympathetic with the present-day position of the medical profession, but there is one very pertinent part of his article that I think should be read here:

"The fate of American medicine and the interests of the American people hangs on the question of who reaches goal first, and gets control of the vast field of medical practice—the medical profession or the politician."

The program I am to present to you is based on the budget recommended by your committee.

The program is two-fold—to create better understanding of public relations within the profession as well as moulding outside public opinion.

You are all familiar with the mail survey we started making about ten days ago. The survey questionnaire has gone out to 3,203 doctors, and up to yesterday (May 9), 554 questionnaires had already been returned, and 118 have already been tabulated.

Returns are being tabulated to give us, first: an overall picture; and second, compilation of cities over 100,000; and third, compilation of cities of 50,000 to 100,000; and fourth, compilation of towns under 50,000.

You might be interested in some of the answers and tabulations of the 118 we have checked. A great many of our answers closely parallel the answers to similar questions in the survey conducted by the National Physicians' Committee.

Of the 554 questionnaires that have been returned, we have one doctor who said he was in favor of socialized medicine. He happened to be a doctor in a very small town. Ten doctors out of 118 indicated that they were in favor of some form of Federal health insurance programs. That doesn't necessarily mean socialized medicine because they were all of the 118 overwhelmingly opposed to it. Seventy-five per cent of the doctors said generally speaking, their patients were against socialized medicine in any form; 13.3 per cent of the doctors said they did not feel fully equipped to answer questions on socialized medicine asked by their patients. I think that brings out the importance of getting into the hands of doctors information that will permit them to answer the questions they may be asked by the public.

Doctors believe that among their patients with whom they have discussed socialized medicine, 24 per cent understand that any plan of socialized medicine as advanced under the Wagner bill would have to be paid in some form of deductions from their payroll.

Twelve per cent know that employers would have to match that deduction.

Forty-eight per cent believe medical service would be theirs free of all cost.

One of the questions that we asked is, what the doctor thought the patient's attitude was toward the profession.

Seventy-four per cent indicated—and this very closely parallels the N. P. C. survey—74 per cent indicated that the attitude toward the doctor is good; 19.2 per cent said that it is satisfactory, and 6.8 per cent said it is bad.

Another question that we asked was, "If it is bad, what do you think are the factors that contribute to it?"—23.5 per cent said high medical fees.

Dr. Cary: You mean 23 per cent of that group?

Mr. Aniol: That is right. In some cases they gave us this opinion, but did not give us these details, so this information is based on the replies of those who gave us this information, and not on 118 questionnaires that were turned in; 23.5 per cent said that they thought it was due to high medical fees; 38.4 per cent said they thought it was high hospital costs; 23.7 per cent said it was unsatisfactory experience with another doctor, and 14.4 per cent said, "other reasons."

Another question we asked was, "Do you believe the bottleneck in the costs of medical care lies in the cost of hospitalization?" 67.1 per cent said they believed it was. On these two questions, "Do you favor prepaid hospital insurance and encourage its purchase?" 78.6 per cent said yes, they favored it. On the other hand, they said they only regularly recommended it 4.7 per cent of the time. 21.4 per cent said they did not favor hospitalization insurance. 14.3 per cent said they occasionally recommended it.

To the question, "Do you favor prepayment medical service insurance and encourage its purchase?" 69.7 per cent said, yes, they favored it. On the other hand, only 1 per cent said they recommended it regularly. 30.3 per cent said they didn't favor it, and 1.8 per cent said they occasionally recommended it. In other words, while doctors favor prepayment medi-

cal service insurance, they are not doing anything to encourage its purchase by patients.

This program and any public relations program should be designed to develop a cordial and mutually profitable attitude and understanding between the profession and the public. That is the point in any public relations program.

We recommended making a consumer survey, doing it geographicaly over the state, carried out very much as the National Physicians' Committee did, by personal contacts, and get some of the answers to the same questions within the borders of the forty-eight states, because while they may have come into Texas and got the same information, it has been in a very spotted way, because they were trying to get the overall National picture, and we would get answers to questions very much like the questions that went to you, except from the individual. We will also find the answers to many questions by carefully checking the newspaper and magazine articles that appear in our state through the clipping services. Material that we will prepare will be designed to reach such groups as your present patients, government leaders and legislators, the press, the radio, organized groups, labor, schools, teachers, school children, farmers, racial groups, and the clergy.

We recommend that display cards or posters such as the one issued several weeks ago, be continued.

Sixty-six per cent of the doctors who returned the 118 questionnaires that have been tabulated said they would like them continued.

In any public relations program, you cannot prepare one bunch of material to reach all classes of the people. Material that goes to the radio has to be different from that which goes to the press. Material that goes to the press has to be different from that sent to Congressmen and State Legislators.

Material will be prepared, and should be prepared, assuming that the program is approved, to reach Government leaders and legislators, Federal, State and Local. In other words, the problem is not necessarily a Federal problem. It can crop up right here in our state, or it can also crop up in local communities, as you all know. Legislators should be kept informed so that they will not improperly consider legislation affecting your interests. And you should keep a score-board on the voting of legislators in the state, as well as those in Washington.

We have gotten fairly good checks in the questionnaires that have come in as to the attitude of the press in various communities, and have found several towns where the attitude of the press is either on the fence, and in a couple of towns that are definitely opposed to the medical profession. These are sore spots, and like a sore spot on a person's body, a remedy has to be found to clear it up. We are going to have to do everything possible to cultivate the press, as Dr. Minter said. He has given you a very true picture of the way the press thinks on this matter. They think you are a fine bunch of fellows, and so far as socialized medicine goes, they are against it, but on the whole they feel that the medical profession has been none too friendly with them in the past.

We are recommending the release of a newspaper health column to the newspapers, edited to meet Texas health problems and questions, and we believe it will find ready acceptance by many newspapers and accomplish a better understanding as well as a great deal of good will for the profession.

We are going to check the attitudes of the radio commentators over the state. We plan to make speakers and material available to radio stations and help commentators understand your problem so that they can interpret it fairly to the public. And we are recommending a transcribed health column of the air be released to radio stations in the state.

A Speakers' Bureau will be set up, and many doctors in answering the questionnaire have signified their willingness to accept assignments. These speakers will be indexed in our office to know when and where available. Speeches and chart material should be made available. Dr. Miller, in San Antonio, has made about twenty talks throughout the state on the matter of the Wagner bill and the effects of socialized medicine, and has very effectively used charts. We believe the sort of material that I have presented here, the material put on charts, could be effectively used by doctors.

Money should be available in the budget to use display advertising to meet emergency situations. In other words, we are not recommending any display advertising, but should the Wagner bill or some other bill come up in the hopper and be a real live issue, and we had to get the story over to the public in a hurry, it should not be necessary to write or pass the hat to raise money.

I hope I have given you something to think about. Some of you might have some questions you would like to ask. We don't set this plan up as being perfect. In fact, we have learned a lot of things in the past eight weeks, and will learn a lot more in the next eight weeks if you adopt it, and, as I said before, and as Dr. Minter said, whatever you do should be logically planned for and logically carried out.

President Venable: Thank you very much. I think you have given us a very complete survey. I don't think you emphasized quite enough the news letter that it is proposed to send out every fortnight, as to the way the straws in the wind are pointing and what the score is.

These reports will be referred to the Reference Committee on Reports of Officers and Committees.

Dr. A. A. Ross then presented the Report of the Committee on Revision of the Constitution and By-laws, as follows:

REPORT OF COMMITTEE ON REVISION OF THE CONSTITUTION AND BY-LAWS

Nothing of importance has been submitted to this committee since its appointment, except by the Secretary of the State Medical Association, who advises that certain amendments have been made to the Constitution and By-Laws since the 1941 edition thereof. He suggests that a new edition of the Constitution and By-Laws should be issued at this time, provided the necessary paper may be had. He has requested our committee to check the amendments to which he calls attention, and to advise this House of Delegates as to their correctness, with recommendations.

Our committee has checked the minutes of the meetings of the House of Delegates since the 1941 edition of the Constitution and By-Laws was published, and we find that the following amendments have been properly made:

(1941) Amend the Constitution, Section 1, Article II, page 3 of the 1941 edition, line 17 of the section, after the word "therefrom" and the semi-colon, the words "provided the county societies shall pay a membership fee in accordance with the By-Laws of the Association."

(1941) Amend the By-Laws, Section 5, Chapter XI, page 27 of the 1941 edition, in line 10 of the section, following the word "Association," after the semi-colon, the words, "Provided that a fee of $4.00 shall be paid by the said component county medical society as a membership fee for each member so elected."

(1941) Amend the By-Laws, Section 2, Chapter XIII, page 33 of the 1941 edition, by removing from District No. 2 the counties of Jones and Taylor, and adding these two counties to District 13.

(1941) The following resolution was adopted: "That all past presidents of the State Medical Association of Texas be organized into an Advisory Council of Past Presidents, that the Association may receive the benefit of their experience and information, concerning policies of the Association, each future president automatically becoming an active member of the Advisory Council of Past Presidents."

(1942) Amend the By-Laws, paragraphs 9 and 10, Section 2, Chapter XIII, page 33 of the 1941 edition, as follows:

"District No. 8: Calhoun, Colorado, DeWitt, Fayette, Fort Bend, Goliad, Jackson, Lavaca, Matagorda, Victoria and Wharton.

"District No. 9: Austin, Brazoria, Burleson, Galveston, Grimes, Harris, Madison, Montgomery, Polk, San Jacinto, Trinity, Waller, Walker and Washington."

No amendments to either Constitution or By-Laws were adopted in 1943.

We recommend that a new edition of the Constitution and By-Laws of the State Medical Association of Texas be issued at the earliest possible time, including the amendments recited above.

Respectfully submitted,
A. A. Ross, Chairman,
W. V. Ramsey,
O. R. Lasater,
J. M. Travis,
W. L. Crosthwaite.

President Venable: The report will be referred to the Reference Committee on Amendments to the Constitution and By-laws.

Dr. H. R. Dudgeon then presented the report of the Advisory Committee to the Women's Auxiliary, as follows:

REPORT OF ADVISORY COMMITTEE TO THE WOMEN'S AUXILIARY

I wish to call the attention of the House of Delegates to the fine work that is being done by the Woman's Auxiliary to the State Medical Association of Texas. It has been active in a most effective manner in the campaign which the medical profession of this state has been carrying on against the serious threat of socializing medicine. In my opinion this has been its outstanding accomplishment for the past year.

Doctor's wives are active in the club work of the communities in which they live, and thus they have opened the way for the speakers against socialized medicine to appear before such clubs, with the result that thousands of letters and telegrams from the club members have been sent to our Senators and Representatives, urging them to oppose any effort at socializing medicine.

The doctor's wives have grasped this most important point: One of the most effective ways of combating proposed radical changes in the practice of medicine is to educate the people to the importance of preventing disease. When every doctor engaged in the practice of medicine is careful to immunize all of their practice against preventable diseases, the public will learn the great importance of such measures and there will be another material increase in the span of life.

By educating the public to the importance of reading and studying the great Health Magazine, *Hygeia* —we might include some of our doctors in the idea— the Women's Auxiliary is doing a fine bit of public service. There are other activities of the Woman's Auxiliary that deserves mention. One of its newer undertakings and one which it proposes to push actively, relates to the medical library of the State Medical Association.

I have observed with pleasure the very fine work that has been done by the Woman's Auxiliary to the State Medical Association of Texas, during the years of its existence it has steadily broadened the scope of its influence and usefulness.

H. R. Dudgeon, Chairman.

President Venable: This report will be referred to the Reference Committee on Reports of Officers and Committees.

Dr. R. B. Anderson then presented the Report of the Committee on Procurement and Assignment, as follows:

REPORT OF COMMITTEE ON PROCUREMENT AND ASSIGNMENT

The last annual report of this Committee to the House of Delegates pointed out the structural composition of the Procurement and Assignment Service, with particular regard to Texas. The Chairman and Vice-Chairman of Procurement and Assignment of Physicians for Texas are appointees of the Hon. Paul McNutt of the War Manpower Commission, as is Dr. S. E. Thompson of Kerrville, Chairman of Procurement and Assignment Service of the Eighth Service Command. Serving in an advisory capacity to the State Chairman are members of the State Advisory Committee on Procurement and Assignment, the members of which committee were appointed by the State Chairman. Their names are appended to this report. There is, in addition, a more extended State Advisory Committee, embracing other groups, such as dentists, nurses, veterinarians, Public Health officials, Civilian Defense, Selective Service, management and labor, which can be called upon if needed, and the personnel of which were given in our last report and need not be repeated here.

In addition to those named, there are 126 local advisory Procurement and Assignment Committees, the members of which were appointed by the State Chairman on the nomination of the 126 county medical societies in the State. When vacancies occur on any of these local committees as the result of deaths, resignations or from any other cause, the State Chairman promptly asks the county medical society in any area affected to nominate someone to fill the vacancy, and such nominees are immediately appointed. There have been several such changes during the past year. The matter is referred to here because some county medical societies still consider the local Procurement and Assignment Committees to be committees of the society when, actually, they are not, although their members are nominated by the societies concerned, and it is desired that such committees reflect the best collective judgment of the medical profession in their county society areas.

Since our last report, the rather heavy expense borne by the State Medical Association in the work of Procurement and Assignment has been materially lessened, in that the Federal Government is now paying the full salaries of two stenographer-clerks in procurement and assignment work, and is now bearing the complete cost of all communications in connection with the work, such as telegraph, telephone, and postage. It is still necessary for a large amount of Procurement and Assignment work to be done by members of the staff of the State Medical Association office, but this is a use of time only and not of funds, since these employees are needed by the Association for its own work, and whatever they may do for the Procurement and Assignment Service may be looked upon as a contribution on the part of the Association to the war effort. It has not been possible so far to recover more than a small part of the money expended by the Association in the initial and early activities of this service.

The past year has been marked by a distinct change in policy with regard to publicity given out

by the Washington Office of Procurement and Assignment on how well the various states were meeting the quotas of medical officers for the Armed Services assigned them. It will be recalled that Texas, along with other southern states, and especially two of her adjoining sister states in the Eighth Service Command, well exceeded her quota for both 1942 and 1943. The Washington Office of Procurement and Assignment has abandoned the quota idea and, instead, now asks that the matter be one of decision in each locality as to whether or not a physician can be spared without jeopardizing adequate minimal community medical care. That is the basis on which Texas has operated during the past year, and Texas doctors are still being declared available for military service, and are still entering the medical services of the Army and Navy. *It is an indisputable fact that the problem in Texas has not been to secure doctors for the Armed Services but to keep communities from being stripped of doctors beyond the safety point. If we would be critical of local advisory committees, the worst that could be said of them, in general, is that because of their patriotism and zeal to win the war there is a constant danger of declaring too many doctors available for military service.* So far, this is a potential rather than an actual danger for the state at large. There are only a few communities in Texas where it may be said the shortage of medical care is acute. Such areas are receiving the closest attention, and doctors are being referred to them constantly in an effort to remedy scarcity of medical care where scarcity exists. In fact, relocation has become the most pressing problem of Procurement and Assignment Service, because it is the most difficult to meet satisfactorily.

For instance, from February, 1943, through January, 1944, a total of 157 doctors were relocated in Texas. Procurement and Assignment Service certainly cannot claim credit for all these relocations, because they include not only relocations in which Procurement and Assignment had a part but relocations which were made by doctors independently, on their own. There have been a few instances in which Procurement and Assignment Service has been instrumental in relieving an acute medical shortage by relocating physicians.

It will be recalled that the 78th Congress enacted Public Law No. 216, which was approved by the President on December 23, 1943, making available to the U. S. Public Health Service the sum of $200,000 during the fiscal year ending June 30, 1944, for the relocation of private practicing physicians and dentists throughout the United States, where acute medical shortages existed. The law provides that the State Health officer must approve applications from any community made under the act, while the State Procurement and Assignment Service chairman has the responsibility of determining which physicians or dentists are available for relocation. The law further provides that no contract shall be made with any physician or dentist unless he has a license to practice in the state having jurisdiction over the locality. It is further provided that such physician shall agree to practice at least one year in the new locality. Such contracts may not be entered into, according to this law, unless the community making the application agrees to contribute 25 per cent of the total cost of the relocation, including travel, transportation, and the three months' pay guaranteed.

So far, the funds available under this law have not been used in Texas in connection with the relocation of any physician since, so far, there has been no occasion requiring such procedure.

The Chairman of the Committee on Industrial Health of the State Medical Association, Dr. Jack Furman of Fort Worth, who is also a member of the State Advisory Procurement and Assignment Committee, has continued to do a fine job in securing physicians to serve war industries in Texas, this work being accomplished jointly with the office of the State Chairman of Procurement and Assignment. As far as is known, every industrial medical need has been met to date, although the task of doing so has at times been difficult.

During the past year, Procurement and Assignment Service assumed an additional responsibility in connection with the deferment of interns and residents of hospitals throughout the State. The year has been marked by the issue of a great number of directives from the Washington Office of Procurement and Assignment, in connection with the development of this program, all of which finally culminated in what is known as the 9-9-9 program, which actually became effective January 1, 1944, at which time all internships and residencies were reduced from twelve to nine months. In this program, all interns who hold commissions in the medical corps of either the Army or Navy are automatically deferred for a nine months internship by an agreement between the Surgeons General of the Army and Navy and Procurement and Assignment Service. As early as March 9, 1943, a directive stated that after July 1, 1943, the number of residents permitted for the hospitals of the United States should not exceed 50 per cent of the number on duty July 15, 1940, and, further, that this 50 per cent should include residents ineligible for military service. It was specifically pointed out on March 30, 1943, that no hospital should have more interns on July 15, 1943, than it had on duty July 15, 1940, unless it could be shown that the hospital patient load had markedly increased, or other conditions existed that merited special consideration.

Under date of April 29, 1943, State Chairmen were informed that an agreement had been reached between Procurement and Assignment Service and the Armed Forces for deferment of a limited number of commissioned interns, and that resident quota staffs for hospitals would be allocated by the Directing Board of Procurement and Assignment Service on the basis of principles agreed to by the Board, the Armed Forces, the hospital committee and the Committee on Medical Education. While these principles were promulgated to State Chairmen, they were at that time held to be confidential. Shortly thereafter, state chairmen were informed that the number of residents allocated had proved inadequate, and state chairmen were instructed to liberalize allowances.

With the definite institution of the 9-9-9 program, it was determined that a certain number of interns with commissions might be deferred by carrying out a definite procedure, provided that not more than one-third of the total of commissioned interns were to be deferred as junior residents. It was further provided that not more than one-half of the total of commissioned junior residents might then be deferred as senior residents. Hospitals are required to make appeals for deferment through the office of the State Chairman who, in each instance, has required that local advisory Procurement and Assignment Committees endorse such appeals, since these committees are on the ground and know the actual needs of these hospitals. When such appeals were endorsed by local committees, they were promptly approved by the State Chairman and forwarded to the Directing Board.

The first allotment of residents for hospitals was too stringent, but it should be said that following appeals for increased quotas of house staffs, the Directing Board of Procurement and Assignment has almost uniformly approved such appeals, and if hos-

pitals could secure the number of residents and interns allowed, they could meet the hospital needs of their communities. The difficult part of it is that the allotment from the Directing Board is on paper only, and the hospital still has the task of attempting to find residents and interns. Only recently, the central office of Procurement and Assignment warned that the 9-9-9 program may fail to function as planned, and a critical shortage of house staffs for hospitals may arise as a result of lack of diligence on the part of hospital managements in seeking deferment of commissioned residents. If they do not secure these deferments, in accordance with regulations prescribed, the success of the program will be jeopardized. It is exceedingly important that prompt attention be given this matter by all hospitals.

The class "A" medical colleges in Texas have also become embarrassed by the difficulty of securing deferments of instructors and demonstrators in medical schools, who hold commissions in the Army and Navy. Since this problem is now being given study, and since final determinations have not been made, we shall not enter into a full discussion of the problem at this time. It is mentioned only to call attention to the fact that it exists.

Procurement and Assignment has also been called upon to secure physicians for the Veterans Administration Facilities in Texas, and has endeavored to meet this demand, and with some success. These facilities have been able to use physicians of ages beyond those acceptable for the Armed Forces.

Only three surveys of critical areas have been required during the past year, and these surveys were made jointly with the Public Health Service in the Gulf Coast area, including Jefferson County, Orange County and Brazoria County. The surveys revealed that there had been some improvement in the medical care situation in Jefferson County from the previous year, since some additional physicians had been located there. The surveys disclosed that only one additional physician was needed in any of the three counties named, a pediatrician for Beaumont. It was agreed that no more physicians could be spared for the Armed Services from either Orange or Brazoria county, following the surveys referred to.

Following directions from the Washington Office of Procurement and Assignment, an earnest effort was made to obtain a completely executed Procurement and Assignment classification of each physician in Texas, regardless of age, and regardless of whether or not in practice. This has been a stupendous undertaking, but it has been almost completely accomplished. A signal development in the classification is the effort of the Central Office of Procurement and Assignment Service to secure a breakdown classification of physicians who are considered not essential for community medical care. It is evident that there is some thought that eventually, if the war continues long enough and medical conditions become acute enough, legislation may be effected that will provide for compulsory relocation of physicians to areas where they are needed, which would be a part of a National Selective Service Act.

The staff in the office of the State Chairman are highly appreciative of the services rendered by local Procurement and Assignment Advisory Committees in helping with the difficult task of securing classification cards from physicians. In many instances, it was necessary for cards to be mailed direct from the State Chairman's office to the physicians, in order to secure results, since local chairmen could not find the time to do the work. The statistical data required in Procurement and Assignment Service are constantly increasing, as is customary in all governmental work of this character, which cannot be avoided while the war is on.

This report is concluded with an expression of appreciation for all who have contributed to the difficult and at times burdensome task of Procurement and Assignment of Physicians for Texas.

Respectfully submitted,
HOLMAN TAYLOR, Chairman,
R. B. ANDERSON, Vice Chairman,
G. F. THORNHILL,
E. F. CADENHEAD,
C. G. SWIFT,
J. S. MCCELVEY.

The report of the Committee on Procurement and Assignment was referred to the Reference Committee on Reports of Officers and Committees.

Secretary Taylor then presented the Report of the Committee on Maternal and Child Health, as follows:

REPORT OF COMMITTEE ON MATERNAL AND CHILD HEALTH

The Committee on Maternal and Child Health of the State Medical Association respectfully recommends that Dr. Arild E. Hansen of the Department of Pediatrics at the University of Texas be invited to appear before the House of Delegates of the State Medical Association of Texas to present his plan as Director of the William Buchanan Foundation Child Health Program.

The Committee makes this recommendation by unanimous vote because the Committee approves the plan of Dr. A. E. Hansen, outlined by him, as follows:

"1. Our first and foremost objective will be that of a teaching program at both the undergraduate and postgraduate levels here at the University of Texas School of Medicine, combined with the development of clinical investigation and basic research projects in the field of Pediatrics.

"2. As we achieve this first objective, it is hoped that we will be able to extend postgraduate teaching and clinical investigations to various places throughout the State. This second phase we hope to carry out in complete coöperation with the practicing physicians of the State and their organizations."

The Committee believes that such a plan can be worked out only with the coöperation of the physicians of the State, and that Dr. Hansen should be given an opportunity to present his plan in detail before the House of Delegates.

This request is the only report the Committee has to offer.

Respectfully submitted,
JAMES L. RENTFRO, Chairman,
HERMAN ECKHARDT,
T. J. MCELHENNEY,
ROSCOE B. G. COWPER,
ROBERT L. HOWELL.

President Venable: This report will be referred to the Reference Committee on Reports of Officers and Committees.

Dr. Conn L. Milburn then presented the report of the Committee on Malaria, as follows:

REPORT OF COMMITTEE ON MALARIA

No meeting of the Committee on Malaria has been called this year because of the transportation situation, and the imperative need for every doctor to remain on duty in his own community. The chairman offered the services of the committee to the State Health Officer, Dr. George W. Cox, and the State Board of Health in their fight on malaria, to help in any possible way.

A brief resume of the malaria situation in Texas at present is conveyed in excerpts from a letter received from L. J. Trotti, Assistant State Director, Malaria Control in War Areas:

"The greatest number of cases is reported from June through September of each year.

"During the ten-year period, 1931-1940, the annual average case record was 14,005; and during the five-year period, 1938-1942, the average annual case record was 6,131. The number of cases reported in 1943 was 8,266, and through February of this year, 945 cases had been reported.

"For many years the State Health Department, in coöperation with City and County Health organizations, has been conducting malaria control activities in Texas. At the advent of the War, control operations were intensified around military and defense establishments, since such a large concentration of war workers and military personnel provided an excellent opportunity for the outbreak of a malaria epidemic which would seriously hamper the war effort.

"During the past year control operations were instituted around hospitals which housed soldiers returned from combat areas in the Pacific."

Respectfully submitted,

CONN L. MILBURN, Chairman,
WILLIAM POWELL,
C. H. STRIPLING,
AUSTIN E. HILL,
M. M. DORBANDT.

President Venable: That report will be referred to the Reference Committee on Scientific Work.

Dr. W. B. Russ, Chairman of the Committee on Medical Licensure, then presented the report of the committee, as follows:

REPORT OF THE COMMITTEE ON MEDICAL LICENSURE

Following a discussion of the medical licensure program of the State Medical Association at the meeting of the Executive Council at Fort Worth, July 13, 1943, President Dr. Venable referred to the Committee on Medical Licensure the subject of medical licensure in Texas, with the direction that the committee review the program previously adopted and make any changes it considered necessary, and to report its recommendations to the Executive Council at the midwinter meeting.

A brief review will be given here of the origin of the Committee, its work, and the program of the State Medical Association on Medical Licensure as approved by the House of Delegates after more than two years' work by the Committee.

The Committee on Medical Licensure was created by action of the House of Delegates at the meeting of the State Medical Association in Fort Worth, in 1941. The reasons for its creation were (1) general dissatisfaction on the part of the medical profession of the State with the results of the annual registration law, which was sponsored and passed at the behest of the State Medical Association in an effort to secure better enforcement by the Texas State Board of Medical Examiners of the Medical Practice Act; (2) a realization on the part of the medical profession of Texas generally that while theoretically the Medical Practice Act is a splendid law, actually it is a complete failure in inhibiting unlicensed cults, such as chiropractic prior to the last session of the Legislature, from plying their trade at will; (3) dissatisfaction on the part of the medical profession of Texas generally with a Medical Practice Act that gives the same legal recognition to osteopaths who pass the examinations of the Texas State Board of Medical Examiners, thus permitting them the privileges of unlimited licenses to practice medicine, for which they are not scientifically qualified; and (4) general dissatisfaction on the part of the medical profession of the State with the division of fees collected by the Texas State Board of Medical Examiners as a means of compensating them for their services, rather than a per diem compensation as is the common method of payment of members of other state examining boards.

The personnel of the first Committee on Medical Licensure, as created by act of the House of Delegates in 1941, was as follows: Dr. W. B. Russ, San Antonio, chairman; Dr. J. Allen Kyle, Houston, a former member of the State Board of Medical Examiners and, also, a member of the Legislative Committee of the State Medical Association; the late Dr. R. B. Touchstone, Lytle; Dr. Curtice Rosser, Dallas; Dr. E. A. Rowley, Amarillo; and the President, the Chairman of the Board of Trustees, the Chairman of the Council on Medical Economics, and the Chairman of the Board of Councilors, ex-officio.[1]

Immediately after its creation the Committee began to seek factual data on medical licensure in Texas from every available source, particularly the records of the Texas State Board of Medical Examiners, the State Auditor, the records of the State Medical Association, with special reference to the large amounts of money spent by the Association throughout the past several years in an effort to amend the Medical Practice Act to make it an effective instrument, and in legal support of the Texas State Board of Medical Examiners, trying to improve enforcement of the Medical Practice Act. The Committee also sought the opinions of the members of the State Board of Medical Examinrs and of officials and members of the State Medical Association with regard to the most practical remedy for the unsatisfactory condition of medical licensure in Texas. The Committee also made extended studies of medical licensure in other states and sought the opinion of the General Attorney of the State Medical Association and the Bureau of Legal Medicine of the American Medical Association.

The Committee made its first report to the House of Delegates at the Annual Session in Houston in May, 1942.[2] The Committee stated in that report that it was not ready to make final recommendations at that time because its studies were not complete. It did, however, make the following observations:

"1. The Medical Practice Act in its present form is objectionable and unenforceable. It should be radically changed, either by amendment or by substitution of some other law.

"2. Before any effort is made to amend or repeal the Medical Practice Act, the committee should, with the aid of the State Medical Association's attorney and the A. M. A. Bureau of Legal Medicine, study the Basic Science Laws adopted by some sixteen other states, and carefully study the history of the administration of our present law, using data secured from official records.

"3. The presence on the Board of Osteopaths, sharing with regular physicians the responsibility of dealing with medical licensure, is wrong in principle and objectionable in practice.

"4. Law enforcement is not a proper function of the State Board of Medical Examiners. If it is true:

a. That the regular law enforcement agencies of the state are neither able nor willing to enforce the law;

b. That it is illegal for the Board of Examiners to use its funds in enforcing the law (such as the cost of securing the presence of witnesses at trials, and of making investigations for obtaining evidence against violators);

c. That all revenue collected is divided among the Board members;

d. That the State Medical Association neither can nor will pay the expense of law enforcement;

e. That the administration of the annual registration feature of the law should be carefully studied.

[1]Texas State Journal of Medicine, June, 1941, p. 136.
[2]June, 1942, Texas State Journal of Medicine, pp. 106-107.

"It is the opinion of the committee that funds derived from the annual registration fees levied upon doctors should not be used for any purpose except registration.

"Finally: The committee has full confidence in the regular members of the Board and their predecessors. They are in no way to blame for deficiencies in the law, nor for the insuperable difficulties encountered in its administration."

The Chairman of the Committee, after presenting the report, expressed the hope that the incoming President of the Association would appoint in place of Dr. Touchstone, who died during the year, Dr. O. B. Kiel of Wichita Falls, at that time president of the Texas State Board of Medical Examiners. That request and the report were approved by the Reference Committee to which the report was referred by President Dr. Buie, and the House of Delegates adopted the report.[3]

The Committee promptly resumed its investigative study along the lines previously referred to here and made its next report to the Executive Council at the midwinter meeting in Houston, December 13, 1942. This report constituted a summary of the work of the Committee up to that date and presented factual data pertaining to the expense incurred by the State Medical Association in its efforts to aid the Texas State Board of Medical Examiners in better enforcement of the Medical Practice Act. The report referred again to the failure of our present medical licensure setup in Texas to properly protect the public from not only unlicensed cultists but from cultists educated for limited methods of healing, who, after passing examinations of the Texas State Board of Medical Examiners or after receiving endorsement of examinations by other State Boards of Examiners, are given unlimited licenses to practice medicine on a par with doctors of medicine. The Committee pointed out in this report that, from its extended investigations, it believed that the chiropractors would make a determined bid for legal recognition in Texas at the next session of the State Legislature. Further, it was the belief of those who had their ears close to the political situation, that unless some different legislative strategy were used to combat the efforts of the chiropractors, they would likely succeed in becoming legalized; that the chiropractors had succeeded in convincing a large number of members of the Legislature that the Medical Practice Act of Texas was not applicable to them—that they do not practice medicine—and that they should be given a legal right to practice the healing art of chiropractic.

Therefore, the Committee on Medical Licensure, in the face of what they considered an emergency, recommended that (1) a basic science bill be promptly drafted, incorporating the most desirable features of basic science laws now operating with great success in many other states, and applicable to all who would treat the sick by whatever method, and that the Medical Practice Act be amended to conform to the provisions of the proposed Basic Science bill, the revised Medical Practice Act then to apply only to doctors of medicine, provision being made that other practitioners of limited methods of healing prepare and have their own enabling acts, which would limit them to their particular methods of healing. It was provided also that this bill repeal the present annual registration law. It was proposed that this bill further provide that all practitioners of whatever method of healing, under such setup, be required to receive a certificate from a basic science board, before being examined for license to practice their respective healing arts by their respective boards.

The Executive Council approved that report of the Committee on Medical Licensure and directed that the Legislative Committee and representatives of the Committee on Medical Licensure and the Texas State Board of Medical Examiners draft the legislation as outlined and have it ready for introduction at the forthcoming session of the State Legislature if, at that time, it was considered that the emergency anticipated existed.[4]

The directions of the Council were carried out and the two bills, a Basic Science bill and a revised Medical Practice Act bill to conform to the Basic Science bill and providing for repeal of the annual registration law, were drafted by the General Attorney of the State Medical Association. These bills were then submitted to the Executive Council at a meeting called especially for that purpose. After amendments were made at the direction of the Council, these bills were introduced in the last session of the Legislature, it being agreed that such procedure offered the best means of defeating chiropractic legislation seeking legal recognition for that cult.

During the last session of the Legislature, repeated meetings of the Executive Council were held in the interest of legislative strategy but, sad to relate, for reasons not repeated here in the interest of brevity, the Basic Science bill never got farther than a favorable report by the Public Health Committee of the House; a hearing was not held on the revised Medical Practice Act, and the Chiropractic bill legalizing that cult was passed by the narrowest possible margin—one vote in the House on the first reading, and a tie vote in the Senate, becoming a law by virtue of the vote of the present Lieutenant Governor, presiding officer of the Senate, who broke the tie.

The next report of the Committee on Medical Licensure was to the House of Delegates at the Annual Session in Fort Worth in May, 1943, in which report a concise review of the developments in the medical licensure program during the past year, as has been recited here was given. The weakness of our present Medical Practice Act, as far as any hope of enforcement of the law against any but doctors of medicine, and other undesirable features were again pointed out in this report. The desirability of passing a basic science bill, with revision or amendment of the Medical Practice Act to conform, and applying only to doctors of medicine was again emphasized, as follows:[5]

"The Committee strongly recommends the enactment of the proposed Basic Science Law now before the Legislature. This law contains the best features of similar laws in sixteen other states and retains the basic science features of real value in the Medical Practice Act of 1907. Among its distinct advantages is the provision that examination of applicants shall be conducted by professional teachers not engaged in treating the sick. The theory behind the Basic Science Law is that the public welfare demands that anyone who desires to assume the responsibility of advising or treating the sick shall prove that he knows enough about the human body in health and disease to recognize the diseases he proposes to treat, and also the diseases he does not propose to treat. The Basic Science Law is for the benefit of the public, not the doctors. It is a protection against ignorance. A Basic Science Law is for protection of the public (against ignorance) and a Medical Practice Act, as commonly understood, is largely for the benefit of practitioners engaged in the care of the sick."

This last report referred to also contained the following specific recommendations:[6]

"We also strongly recommend the enactment of

[3]June, 1942, Texas State Journal of Medicine, p. 115.

[4]Minutes, Executive Council Meeting, Houston, December 13, 1942.

[5]June, 1943, State Journal of Medicine, p. 97.

[6]Ibid., p. 97.

the unlimited Medical Practice Act, now before the Legislature, which is a worthy successor to the present Medical Practice Act.

"It is also recommended that our Executive Council and Legislative Committee co-operate with representatives of other so-called schools of medicine, or practitioners of the healing art, in securing the enactment of regulatory laws for their own groups, provided that they each be licensed to practice only what they teach (limited license), and that in no instance should such enabling acts confer on their licentiates unlimited scope of practice as conferred by the unlimited Practice Act."

The reference committee to which this report was referred chose to deal with that report, the Report of the Executive Council, and the Report of the Legislative Committee, as far as the legislative program of the State Medical Association was concerned, as one entity. The reference committee congratulated the three groups named, with the expressed hope that "they would continue their endeavors (the passage of the Basic Science Bill and Revised Medical Practice Act Bill, then pending in the Legislature) as long as there is any chance, and (to) be of good cheer."[7]

The reference committee's report was adopted, placing the unqualified endorsement of the House of Delegates upon the licensure program of the State Medical Association by that action, which included passage of a basic science bill and a bill to amend the Medical Practice Act to conform, so that it would apply only to doctors of medicine, the various other groups of practitioners of limited methods of healing being expected to secure enabling acts for their limited practices—the basic law to apply to all practitioners of whatever method.

This then brings down to date the efforts of the Committee on Medical Licensure to carry out the directions of the House of Delegates when it was created by that policy-making body of the Association, in June, 1941. Whether or not the Committee has functioned satisfactorily in achieving the purposes for which it was created, would seem best decided by the fact that the House of Delegates has approved in full its recommendations after more than two years of laborious effort and study.

It has been charged that the Committee on Medical Licensure reflected upon the integrity of the membership of the Texas State Board of Medical Examiners. Such a charge is simply an effort to divert attention from the basic principles involved in the medical licensure problem in Texas. We prefer not to argue that point here in a report already too long, but we will refute it by quoting again from our first report to the House of Delegates on this subject in 1942. The quotation follows:[8]

"Finally: The Committee has full confidence in the regular members of the Board and their predecessors. They are in no way to blame for deficiencies in the law nor for the insuperable difficulties encountered in its administration."

Second, it has been charged that the Basic Science bill has not been before the House of Delegates and that the members of the State Medical Association don't know what the bill contains. The answer of the Committee to these charges is that you can lead a horse to water but you can't make him drink. The opinion of the Committee, however, is that neither of these charges is true. In support of our contention that they are without foundation in fact, and again are made to divert attention from the basic principles involved, we would point out the following publicity given to the medical licensure problem, which, we believe, is as adequate publicity as can be given to inform the members of the Association:

1. The following four editorials were published in the February, 1943, number of the JOURNAL, all of which deal specifically and in detail with the licensure problem in general and basic science bill in particular:

   a. A Solution of the Problem of Medical Licensure in Texas.[9]
   b. The Basic Science Law.[10]
   c. The Medical Practice Act.[11]
   d. A Typical Plea for Chiropractic Legislation.[12]

2. The following editorials appeared in the March, 1943, number of the JOURNAL, all again dealing specifically with the licensure problem in general and the Basic Science bill in particular:

   a. The Medical Licensure Situation.[13]
   b. The Text of the Basic Science Bill.[14]
   c. The Text of the Proposed New Medical Practice Act.[15]

3. The last three editorials listed were reprinted, with copies of the Basic Science Bill, which was published *in full* in the March, 1943, number of the JOURNAL,[16] and copies of the Medical Practice Act Bill, and also published in full in the March, 1943, number of the JOURNAL,[17] and sent to the legislative committees of the 126 county medical societies comprising the State Medical Association.

4. Reprints of the last three editorials and of the Basic Science Bill and the Medical Practice Act Bill were distributed to the House of Delegates at the 1943 meeting at the time the report of the Committee on Medical Licensure was presented, which completely refutes the charge that the Basic Science Bill was not considered or placed before the House of Delegates. The fact that the bill was not discussed or debated by the House is an indication that it met with their approval, since they unqualifiedly approved the report of the reference committee which dealt with the report of the Licensure Committee.

The Committee on Medical Licensure met December 12, 1943, at San Antonio, the day preceding the midwinter meeting of the Executive Council, with the following members present, and approved the foregoing report: Dr. W. B. Russ, Chairman; Dr. T. C. Terrell, Vice-Chairman; Drs. E. W. Bertner, O. B. Kiel, J. Allen Kyle, S. E. Thompson and Sam N. Key. Members of the Legislative Committee and Executive Council, and Texas State Board of Medical Examiners were present by invitation. An extended discussion was had of the medical licensure problem in Texas.

The Committee on Medical Licensure made certain recommendations as a part of its report at that time, but decided that it would defer any report to the Executive Council and report instead to this House of Delegates. The Committee is of the opinion that recommendations, which it approved as a part of its report at San Antonio, should now be changed because of the graver economic problems facing medicine and, also, because of the war. The Committee believes that all controversial matters within the medical profession itself should be set aside for the duration, in order that a completely united front may be presented to those who would destroy American Medicine.

The Committee on Medical Licensure believes, further, that in the period from the present time to the end of the war, further study may be advantageously made of the licensure problems, to determine

[7] Texas State Journal of Medicine, June, 1943, p. 102.
[8] June, 1942, Texas State Journal of Medicine, p. 107.
[9] Texas State Journal of Medicine, February, 1943, p. 581.
[10] Texas State Journal of Medicine, February, 1943, p. 582.
[11] Texas State Journal of Medicine, February, 1943, p. 583.
[12] Texas State Journal of Medicine, February, 1943, p. 584.
[13] Texas State Journal of Medicine, March, 1943, p. 633.
[14] Texas State Journal of Medicine, March, 1943, p. 635.
[15] Texas State Journal of Medicine, March, 1943, p. 637.
[16] Texas State Journal of Medicine, March, 1943, p. 676.
[17] Texas State Journal of Medicine, March, 1943, p. 679.

whether or not a central state agency of some sort might not be set up, composed of *non-professional* personnel, who would issue licenses to all who would treat the sick by whatsoever legalized method, on the endorsement of *professional* boards of examiners. This agency might then be freighted with the responsibility of enforcing the law with regard to who is legally qualified to practice medicine, osteopathy, chiropractic, and so forth. It might be well to require annual registration fees of all licensed to treat the sick by whatsoever method, the funds raised by such fees being used by this *non-professional* agency of the State to enforce the laws applying to each group of practitioners, medical, osteopathic, chiropractic, etc.

Therefore, your Committtee on Medical Licensure asks again for the approval of this House of Delegates for its work to date;

Recommends that the State Medical Association initiate no legislative activity pertaining to medical licensure for the duration of the war; and

That the Committee on Medical Licensure be directed to continue studies of laws in other states governing medical and other types of practice until the war is over. The Association may then have a thoroughly worked-out and agreed-to legislative program on medical licensure, ready for immediate consideration by the first available Legislature.

Respectfully submitted,

W. B. Russ, Chairman,
T. C. Terrell, Vice-Chairman,
E. A. Rowley, Sam N. Key,
S. E. Thompson, C. E. Scull,
C. C. Cody, E. W. Bertner,
J. Allen Kyle, O. B. Kiel.

Addendum to Report of Committee on Medical Licensure

That the House of Delegates or Executive Council, if it is found necessary, is empowered to make any needed changes in the legislation called for in the present report of the Committee on Medical Licensure and, if deemed necessary, to direct the Legislative Committee to present to the Legislature any changes in the Medical Practice Act considered necessary;

And, further, that the Legislative Committee be directed by the House of Delegates or Executive Council to present such legislation to the Legislature and work for its enactment.

W. B. Russ, Chairman,
For the Committee.

President Venable: The report will be referred to the Reference Committee on Reports of Officers and Committees.

The report of the Committee on Liaison with Lone Star State Medical, Dental and Pharmaceutical Association was then read by Secretary Taylor, as follows:

REPORT OF COMMITTEE ON LIAISON LONE STAR STATE MEDICAL, DENTAL AND PHARMACEUTICAL ASSOCIATION

In view of the war situation, and the fact that there was no meeting between this committee and the companion committee from the Lone Star State Medical, Dental and Pharmaceutical Association, the Negro organization with which the State Medical Association coöperates, there was no report from our committee last year. There still has been no meeting between the two groups, and so far as we have been able to ascertain, there have been no pending problems of importance and of mutual concern. Several communications between the secretaries of the two Associations have failed to bring out anything of the sort. This fact, grouped with the additional and more pressing fact that the several members of the two committees have been entirely too busy to meet in a fixed expedition, seeking points of mutual concern and mutual service, has prevented a conference.

The correspondence mentioned has disclosed, however, that the Negro group are not entirely satisfied with the situation at the Negro Tuberculosis Sanatorium at Kerrville. We do not know of any allegations that the Negro medical profession of the state have not been treated fairly in the matter, or that the Negro patients have not been properly cared for, but whatever the situation, it is our feeling that we should do as has been done heretofore, refer the entire matter to our Committee on Tuberculosis. It will be recalled that this committee on another occasion advised that complaints against the institution in question appeared to be without substantial support, and that, on the contrary, the situation at the Sanatorium at Kerrville was quite satisfactory.

The Negro group have apparently been concerned with the place of the Negro physician in a Post-War World, and particularly in the event socialized medicine is forced upon us. This problem would, indeed, be one for mutual discussion and joint decision. In the absence of any opportunity for anything of the sort, it is our recommendation that this House of Delegates assure the Negro medical profession of the state, that it will do its best in protecting their interests in any such developments as they anticipate. In this connection, we are advised that the Negro medical profession has rendered financial support to the National Physicians Committee in its fight on socialized medicine. We commend this action on their part.

The Negro group expresses the hope that if and when meetings of our group are held for discussions of any problems which affect the Negro physician, they be given an opportunity to present their views, through official representation. It is our recommendation that this be done, in accordance with plans to be set up by the respective groups, with and by the advice of our Liaison Committee.

Our committee is convinced that the interests of the Negro medical profession in Procurement and Assignment Service have been amply protected and cared for by the State Committee on Procurement and Assignment.

It will be recalled that the State Medical Association of Texas has joined other groups, led by the Texas Tuberculosis Association, in sponsoring the Postgraduate Medical Assembly for Negro Physicians, held at Prairie View, each year. It may be reported here that the attendance on the Assembly this year was the largest in the history of the Assembly.

Respectfully submitted,

C. S. Venable, Chairman,
Holman Taylor,
S. E. Thompson,
C. E. Scull,
C. C. Cody.

President Venable: The report will be referred to the Reference Committee on Reports of Officers and Committees.

The Secretary read a communication from the Section on Public Health, following the conclusion of the meeting of the Section, at Austin, April 21, in which attention was called to three resolutions adopted by the Section and referred to the House of Delegates for action. These resolutions were as follows:

1. Resolution calling for the repeal of the State Food Handler's Certificate Law;
2. Resolution calling for the revision of the State Sanitary Code, and
3. Resolution calling for the establishment of a school of Public Health in the State of Texas.

President Venable referred to the Reference Committee on Report of Officers and Committees, the resolution calling for the repeal of the State Food Handlers' Certificate Law, and the resolution calling for the revision of the State Sanitary Code. The resolution calling for the establishment of a School of Public Health in the State of Texas was referred to the Reference Committee on Scientific Work.

The Secretary then presented a communication from the Section on Radiology and Physiotherapy, requesting the endorsement of a resolution adopted by that section, and advising that Dr. H. E. Whigham of McAllen, would present the resolution. Dr. Whigham then presented a resolution pertaining to the speciality of radiology and its frequent misuse in hospitals.

President Venable referred the resolution to the Reference Committee on Reports of Officers and Committees.

The Secretary read a communication from the Texas Tuberculosis Association, advising the State Medical Association of a new organization recently launched along the Mexican border, the purpose of which is to study conditions pertaining to the public health. The new organization has been sponsored by the Southwest Texas District Medical Society, and the communication expressed the hope that the State Medical Association of Texas would do the same.

President Venable referred the communication to the Reference Committee on Scientific Work.

The Secretary read a communication from the North Texas District Medical Society, suggesting a slogan to be used by the medical profession in the fight against socialized medicine.

President Venable referred the report to the Reference Committee on Reports of Officers and Committees.

Dr. J. W. Ward moved "That Section 1, Chapter XIV, of the By-Laws, January 1, 1941, Edition, be amended by adding to the first line thereof the figure '$15.00' in lieu of the figure '$9.00,' as at present."

President Venable: The amendment is referred to the Reference Committee on Finance.

Dr. H. E. Griffin moved Section 2, Article 1, of the Constitution, Page 3, of the January 1, 1941, edition, be amended, by adding to the section the following wording:

"The Association shall have the right and the authority, through its proper agencies, when acting only in its protection, to regulate fair dealings among the members of the Association and to maintain and advance the standards of Medical Practice, and to enact By-Laws regulating such matters."

Dr. Griffin: That will have to lay over and be voted on in 1945.

I also move that we amend Chapter 15 of the By-Laws, Page 34 of the January 1, 1941, edition, by adding to the chapter a new section, designated as Section 4, as follows: "Section 4. County Medical Societies shall have the authority, when acting only to protect their organizations, to regulate fair dealings among their members, to maintain and advance the standards of medical practice, and to adopt reasonable by-laws and measures to that end."

This may be voted on tomorrow.

Dr. Travis: I seconded both motions.

President Venable: These amendments are referred to the Reference Committee on Reports of Officers and Committees.

President Venable: If there is no further business, the House will adjourn until 9:30 in the morning.

SECOND DAY

The House of Delegates met pursuant to adjournment Thursday, May 11, 1944, at 9:30 a. m., in Parlors "E" and "F," mezzanine floor, Adolphus Hotel, Dallas, Texas, with President C. S. Venable in the Chair.

President Venable: Come to order, gentlemen, please. The first order of business is the report of the Reference Committee on Credentials.

REPORT OF REFERENCE COMMITTEE ON CREDENTIALS

Dr. Griffin: There are 70 delegates registered.

President Venable: A quorum is present; we will proceed.

Dr. H. E. Griffin: Mr. President and members of the House of Delegates: I move to amend Section 16, Chapter IX of the By-Laws of the State Medical Association of Texas, Page 24 of the January 1, 1941, edition, of the Constitution and By-Laws, by changing the period in the last line of the paragraph to a semi-colon and adding the following:

"(7). Reference Committee on Medical Service and Public Relations."

President Venable: Dr. Anderson has the floor.

Dr. R. B. Anderson: Allow me to explain the matter. All of you know that your Reference Committee on Reports of Officers and Committees each year has entirely too much work to do. There is too much referred to that committee. It was thought that that committee should be broken down and a new Reference Committee created in order to give more orderly consideration to the reports of Standing Committees. Dr. Griffin is asking unanimous consent of the House of Delegates to introduce this amendment to the by-laws to create a new reference committee, making an additional reference committee, simply to expedite the work of this House, that committee to be known as the "Reference Committee on Medical Service and Public Relations."

Dr. Griffin: If I may further remark, we men of the Council on Medical Economics feel that we need the advice of a committee which will make it their business each year to familiarize themselves with the needs of the State Medical Association in connection with our work. We would very much appreciate having a committee like that established.

Secretary Taylor: Yes, but what you must do now is to secure the consent of the House to introduce the amendment.

President Venable: All in favor of receiving this motion at this time, will say Aye. All opposed No. It is unanimously received. It will be referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Dr. T. G. Glass, Chairman, then presented the Report of the Reference Committee on Finance, as follows:

REPORT OF REFERENCE COMMITTEE ON FINANCE

The committee met with all members present. The Treasurer's report was carefully examined, and was approved by the committee. We recommended the adoption of the report.

Upon motion of Dr. Glass, seconded by Dr. Ross, that part of the report was adopted.

The Report of the Board of Trustees was carefully examined, and after due consideration, was approved.

Amendments to the Constitution and By-Laws Pertaining to Military and Honorary Memberships

The committee recommended the adoption of the

amendments to the by-laws pertaining to Military Memberships and Honorary Memberships, as set out on Page 16 of the Hand Book, and that the Constitutional Amendment mentioned there be tabled for the next regular meeting of the House of Delegates.

Dr. Travis: I second the motion.

The motion was then put and carried, and President Venable declared the amendments to the By-Laws adopted as read, and printed in the hand book, in the Trustee's report.

Dr. Glass: The committee reviewed the report of the Council on Medical Defense, and recommends the approval of the report.

On motion of Dr. Glass, seconded by Dr. Ross, that part of the report was adopted.

Amendment to By-Laws Pertaining to Increase in Dues

The committee gave due consideration to the motion made by Dr. Ward, and referred to the committee, that Section 1, Chapter XIV, of the By-Laws, January 1, 1941, edition, be amended by adding to the first line thereof the figures "$15.00" in lieu of the figure, "$9.00," as at present.

The committee offers an amendment to this motion that the figures be changed from $15.00 to $20.00, and, with that change, recommend adoption of the amendment. This recommendation is based on the premise that the publicity campaign, recommended by the Committee on Public Relations, is carried out. In the instance the House of Delegates decides not to put on such a program, this amount will not be needed, and the committee recommends the restoration of the original figure of $15.00, which is deemed ample to care for the needs of the Association for the next year.

Dr. Glass moved that this recommendation of the committee be adopted, and that the amendment to the by-laws be passed. The motion was seconded by Dr. A. C. Scott.*

The motion was put and carried, and the President declared the by-law as amended by the committee duly passed.

Dr. ~~A. A.~~ Jackson, Chairman, then presented the report of the Reference Committee on Reports of Officers and Committees, as follows:

REPORT OF REFERENCE COMMITTEE ON REPORTS OF OFFICERS AND COMMITTEES

The following slogan for the proposed publicity campaign, submitted by the North Texas District Medical Society, meets with the approval of our Committee, and it is recommended that the slogan be referred to our Committee on Public Relations:

Slogan for Publicity Campaign

"It is true that we do have an economic problem in the practice of medicine, but it is unwise for us to exchange an economic for a poltical problem."

On the motion of Dr. Jackson, seconded by Dr. Thompson, this part of the report was adopted.

*Secretary's Note: The motion was discussed at length, the following members of the House participating: L. H. Reeves, J. W. Ward, B. L. Jenkins, H. R. Dudgeon, Clark G. Campbell, A. A. McDaniel, W. P. Ball, T. G. Glass, S. J. R. Murchison, H. E. Whigham, John T. Moore, L. C. Powell, A. C. Scott, T. W. Buford, J. M. Travis, J. C. Thomas, C. O. Terrell, E. W. Bertner, L. C. Heare, A. R. Shearer, S. W. Watson, Secretary Taylor, and J. N. White. The minutes of the meeting will show that the motion was postponed until after the House had acted upon the recommendation of the Committee on Public Relations, that a publicity campaign be undertaken by the Association, which committee report was considered a short while later and the decision made. Following the decision, the postponed motion was revived and, following the debate already referred to, action on the adoption of the amendment as amended by the Reference Committee was taken.

+ L.B. (see p. 204.)

Our Committee is of the opinion that Radiology is a definite branch of medicine, and as such should not be included in any hospitalization plan without due reference to the radiologist concerned. Therefore, we approve the following resolution, submitted by our Section on Radiology and Physiotherapy, and recommend its adoption:

Resolution on Radiology

Whereas, the American Medical Association House of Delegates has repeatedly ruled that the Science and Art of Radiology is a Specialty in the practice of Medicine and not a branch of hospital service, and

Whereas, the Blue Cross Hospitalization Contract, the American Hospital Association, the Wagner-Murray-Dingell Bill and the Emergency Maternal and Infant Care program, and various governmental bureaus and agencies are endeavoring to include radiological service as a part of the service tendered by hospitals on per diem basis, and

Whereas, the treatment of veterans of World War II will, we hope, be conducted to a large extent by civilian physicians in non-military hospitals, therefore be it

Resolved, by the Section of Radiology and Physical Therapy of the State Medical Association of Texas, that its members are opposed to this subjugation of the Science of Radiology by any agency, and be it further

Resolved, that this resolution be presented to the House of Delegates of the State Medical Association at its next regular meeting, with the petition that said House of Delegates condemn this action on the part of the American Hospital Association and its component members, and the various hospitalization insurance companies, and the various bureaus and agencies of the federal government, in any existing or subsequent contracts or agreements.

Upon motion of Dr. Jackson, seconded by Dr. Travis, this part of the report was adopted.

We recommend the adoption of the following resolution calling for a revision of the State Sanitary Code referred to this House of Delegates by the Section on Public Health, and recommend further that the resolution be referred to our Legislative Committee for appropriate action:

Resolution Revision State Sanitary Code

"Whereas, the present Sanitary Code of the State of Texas was enacted into law by the 32nd Legislature in the year 1911, and

Whereas, there have been great advances in medical science and sanitation since the passage of such law, and

Whereas, many parts of the Sanitary Code are antiquated and in need of revision, and

Whereas, the welfare of the citizens of the State of Texas is involved, therefore be it

Resolved that the House of Delegates of the State Medical Association direct its Legislative Committee and any other such agencies concerned, to procure the revision of the Sanitary Code so that it will be brought into accord with modern medicine."

Upon motion of Dr. Jackson, seconded by Dr. King, this part of the report was adopted.

We recommend the adoption of the following resolution, calling for the repeal of the State Food Handlers' Certificate Law, suggested to this House of Delegates by our Section on Public Health, and recommend further that the matter be referred to our Legislative Committee for appropriate action.

Resolution Calling for Repeal of State Food Handlers' Certificate Law

"Whereas, the present State Food Handlers' Law has proven inadequate in practice, therefore be it

RESOLVED, that the Section on Public Health of the State Medical Association of Texas memorialize the House of Delegates of the Association to urge upon the State Legislature the repeal of said Food Handlers' Certificate Law."

Upon the motion of Dr. Jackson, seconded by Dr. Whigham, this part of the report was adopted.

There is nothing this Committee could say that would add to the sincere tribute paid by Chairman Dr. John T. Moore, of our Committee on Memorial Exercises, to our friends and confreres who have, during the past year, been called to their eternal reward. We recommend the adoption of the report.

Upon motion of Dr. Jackson, seconded by Dr. Sweatland, this part of the report was adopted.

The report of Chairman Dr. Dudgeon, on the Woman's Auxiliary to the State Medical Association, discloses something of the unexplored possibilities of the service of the Auxiliary, particularly in educational work, and we recommend the adoption of the report and the extension of appreciation to the Auxiliary and to the Committee.

Upon motion of Dr. Jackson, seconded by Dr. Ross, this part of the report was adopted.

We commend the Board of Councilors upon their work for the year. Because of existing circumstances, brought about by war conditions, we appreciate that their task has been doubly hard. We recommend that the report of the Board of Councilors be adopted.

Upon motion of Dr. Jackson, seconded by Dr. David, this part of the report was adopted.

The address of Dr. E. H. Cary, Chairman of the National Physicians' Committee, delivered to this House of Delegates, is most informative and intensely interesting. The statistical and factual matter was extensive, and presented as few speakers could present it. We consider the medical profession most fortunate in having a man of Dr. Cary's attainments to handle this most delicate situation. This House of Delegates owes Dr. Cary and his organization a debt of gratitude.

Upon motion of Dr. Jackson, seconded by Dr. Scull, this part of the report was adopted.

The President's Address and his report to this House of Delegates, as to his stewardship, reflects a job well done under most trying circumstances. Dr. Venable has carried the Association through a difficult year, and has warned us of many dangers facing organized medicine, and has made numerous wise suggestions as to the avoidance of pitfalls that might well be fatal to the progress of our profession.

Upon motion of Dr. Jackson, seconded by Dr. Thompson, this part of the report was adopted.

Your Committee wishes to commend the Secretary's office. In spite of a tremendous increase in the work of the office during the year, and through almost superhuman efforts, its task has been consummated. In spite of the fact that Secretary Taylor was ill for three months during the year, the work has been carried on by his assistant, Dr. Anderson, and we commend both Dr. Taylor and Dr. Anderson for their untiring efforts in behalf of the Association.

Upon motion of Dr. Jackson, seconded by Dr. Travis, this part of the report was adopted.

The Committee on Procurement and Assignment of Physicians, working under tremendous handicap, has rendered a marvelous service. A glance at the membership of this House of Delegates emphasizes the obvious fact that only the "Nine old men" are left.

Upon motion of Dr. Jackson, seconded by Dr. Sweatland, this part of the report was adopted.

The Committee on Liasion with the Lone Star State Medical, Dental and Pharmaceutical Association, the recognized organization of the ethical negro physicians of our state, discloses that there is some dissatisfaction with the conditions now existing in the negro tuberculosis sanitarium at Kerrville. Our Committee advises that there is more such dissatisfaction than is indicated in the report. It recommends that the President of the Association appoint a committee to thoroughly investigate the conditions existing there, and report, with recommendations, to the Executive Council of the State Medical Association. We endorse the report, and recommend its adoption.

Upon motion of Dr. Jackson, properly seconded, this part of the report was adopted.

We wish to congratulate the Committee on Medical Licensure on its extensive and untiring efforts. It is our recommendation that the report of this Committee, and its recommendations, including the addendum to the report, be adopted.

Upon motion of Dr. Jackson, seconded by Dr. Hudgins, this part of the report was adopted.

A study of the extensive and detailed report of the Board of Trustees discloses that the Board has, as usual, devoted much time and thought to the affairs of the Association. This Committee wishes to express the appreciation of this Association. We recommend the adoption of that part of the report referred to our Committee, in full and in detail.

Upon motion of Dr. Jackson, seconded by Dr. Ross, that part of the report was adopted.

We heartily endorse the report of the Executive Council, and recommend its adoption.

Upon motion of Dr. Jackson, seconded by Dr. David, that part of the report was adopted.

We commend most heartily the Council on Medical Economics, for its thorough and comprehensive report. We concur in the recommendations carried by the report. We would respectfully direct the attention of the membership to the need of medical economics statistics in our efforts to prevent the encroachment of socialized medicine, and we earnestly solicit the continued coöperation of our Council on Medical Economics in the matters concerned.

We recommend the adoption of the following amendments to the Constitution and By-Laws of the State Medical Association as urged by the Council on Medical Economics:

AMENDMENT TO CONSTITUTION PERTAINING TO REGULATION OF MEMBERS

"Amend Section 2, Article I, of the Constitution, Page 3 of the January 1, 1941, edition, by adding to the Section the following wording: 'The Association shall have the right and the authority, through its proper agencies, when acting only in its protection, to regulate fair dealings among the members of the Association, to maintain and advance the Standards of Medical Practice, and to enact by-laws regulating such matters.'"

AMENDMENT TO THE BY-LAWS PERTAINING TO REGULATION OF MEMBERS

"Amend Chapter XV, of the By-Laws, Page 34, of the January 1, 1941, edition, by adding to the chapter a new section, designated as Section 4, as follows: 'Section 4. County Medical Societies shall have the authority, when acting only to protect their organizations, to regulate fair dealings among their members, to maintain and advance the Standards of Medical Practice, and to adopt reasonable by-laws and measures to that end.'"

As pointed out by Chairman Dr. Cody, these amendments are in line with the decision of the

United States Supreme Court in the famous Washington Case, in which the Harris (Texas) County Medical Society was featured.

Upon motion of Dr. Jackson, seconded by Dr. Moore, the amendment to the Constitution was tabled for consideration at the next annual meeting of the House of Delegates, and the amendment to the by-laws was adopted.

Our Committee approves the addendum to the report of the Council on Medical Economics and recommends that the words "Governmental Agencies," used in the first paragraph be deleted therefrom, and that the paragraph close with the statement "Or the encroachment by governmental agencies on the private practice of medicine."

Upon motion of Dr. Jackson, seconded by Dr. Hudgins, that part of the report was adopted.

Our Committee endorses in principle the prepayment plan offered in the joint report of the Legislative Committee and the Council on Medical Economics. The views expressed in this report are deemed expedient at this time as part of the program to keep the practice of medicine a free enterprise for the protection of the public health, and the preservation of the heritage of freedom of action and individual initiative, not only in medicine, but in all enterprises. This, combined with a proper program of education, will prove to be a great advantage in the preservation of liberty, so dearly bought by our fathers. We would urge caution in the general adoption of prepayment plans, that they do not interfere with the contractual relationship between doctor and patient.

Dr. Jackson moved the adoption of that part of the report, which motion was seconded by Dr. Russ.

Dr. John H. Burleson submitted the following resolution as an amendment to this part of the report:

Resolution Prepayment Medical Care Plan

"Resolved, That this House of Delegates approve in principle the prepayment plans for medical care as conducted by corporations, and look with favor on the formation of a medical plan to work in conjunction with group hospitalization on a non-profit plan in the interests of the lower-income group."

Dr. Burleson stated that the idea expressed in the resolution was sponsored by the American Medical Association. Dr. Burleson said, further, "If we mean what we say about taking care of the man in the street who cannot pay his bills; if we quit all our high-flown ideas and come down to earth, and if we are really trying to take care of the man in the street and remove criticism from the medical profession, I believe it will be agreed that we should do something of the sort."

The amendment offered by Dr. Burleson was agreeable to the makers of the motion, and the motion, as amended, was put and carried, and that part of the report was adopted.

We congratulate the Committee on Public Relations on its work, both as to amount and character. We feel that it is fortunate that this important task has been in such efficient hands. We recommend the adoption of the report, and that the educational campaign recommended in the report be prosecuted for one year, the amount of money to be appropriated therefor to be left to the Board of Trustees.

Upon motion of Dr. Jackson, seconded by Dr. King, that part of the report was adopted.

The Committee on Public Relations recommended an amendment to the by-laws of the Association, setting up a permanent committee on Public Relations, to be appointed and directed by the Board of Trustees. The amendment itself was not submitted to our Committee, but we now have it, and wish to add it to our report, and recommend its passage. The proposed amendment follows:

Amendments to By-Laws Creating Committee on Public Relations

"Amend Section 3, Chapter IX, of the By-Laws, by adding to line 8 of the Section, following the word "(8) Committee on Cancer," the words (9) Committee on Public Relations," changing the numerical designation of each succeeding phrase of the paragraph accordingly.

"Amend Chapter IX of the By-Laws, by adding a new section to be known as Section 9, succeeding sections to be renumbered accordingly, as follows:

'Section 9. (a-6) The Committee on Public Relations shall be appointed by the Board of Trustees of the Association, and shall render service under the direction of the said Board of Trustees, with and upon the advice of the Executive Council of the Association, and in accordance with the financial condition of the Association, as determined by the Board of Trustees. The Committee shall consist of five members, with the Board of Councilors, and such other groups and members of the Association as may be determined by the Board of Trustees, as advisory members. The duties of the Committee shall be to conduct such campaigns and engage in such activities as may result in a proper evaluation by the public of the services of the medical profession, and a proper evaluation by the medical profession of its obligation to the public, as may be established by act of the House of Delegates or other groups, officers or agencies of the Associated, qualified to act in any given case or under any given circumstances.'"

Upon motion of Dr. Jackson, seconded by Dr. Reeves, that part of the report was adopted, and the amendments to the by-laws declared duly passed.

Upon motion of Dr. Jackson, seconded by Dr. Thompson, the report of the Committee as a whole, as amended, was adopted.

Dr. Conn L. Milburn, Chairman of the Reference Committee on Amendments to the Constitution and By-Laws, then presented the report of the Committee, as follows:

REPORT OF REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Your Committee has given thoughtful consideration to the recommendations made in the Report of the Committee on Revision of the Constitution and By-Laws, which cover amendments to the Constitution and By-Laws adopted by the House of Delegates in the years 1941 and 1942, which have not yet been incorporated in the printed Constitution and By-Laws. Your Reference Committee supports the recommendations referred to, and recommends that the amendments be incorporated in a new edition, and as soon as it is practicable to have such edition published. I move the adoption of the report.

The motion was seconded by Dr. John T. Moore, and carried, and the report of the Committee was adopted.

The following amendment to the by-laws, to form a new Reference Committee, has been submitted to our Committee:

Amendment to the By-Laws

"Amend Section 16, Chapter IX, of the By-Laws of the State Medical Association of Texas, Page 24 of the January 1, 1941, edition, of the Constitution and By-Laws, by changing the period in the last line of the paragraph to a semi-colon, and adding the following:

'(7) Reference Committee on Medical Service and Public Relations.'"

You have heard the complaint that the Reference Committee on Reports of Officers and Committees has too much work. I move that it be adopted.

The motion was seconded by Dr. Jones, and carried and the amendment adopted.

Upon motion of Dr. Milburn, seconded by Dr. Sweatland, the report of the Committee as a whole was adopted.

Dr. B. E. Pickett, Chairman of the Committee on Scientific Work, then presented the report of the Reference Committee on Scientific Work, as follows:

REPORT OF REFERENCE COMMITTEE ON SCIENTIFIC WORK

The Reference Committee on Scientific Work has reviewed Page 19 of the Handbook, with reference to the Library. The Committee agrees with the Board of Trustees that the Library requirements of the State Medical Association will be adequately served by an active working Library, keeping in mind that medical libraries are available at the University of Texas School of Medicine, American Medical Association Library, and Army Medical Library. Adequate housing facilities are to be furnished at the discretion of the Board of Trustees.

We should like especially to commend the Board of Trustees on the establishment of a Motion Picture Lending Library. Your Committee believes that in times to come, this will be one of the most valuable educational services which the Association can render its members. We recommend this service to county medical societies throughout Texas, and urge that they take advantage of it.

We note that during the past year, no additional endowment fund has been established in support of the Library, although the Trustees report that one is in the offing. We should like to call attention specifically to the value of these funds, and point out what may be accomplished thereby. It is hoped that members of the Association who can afford to do so, will consider the establishment of such funds, and will interest laymen who have available means and are seeking ways to serve humanity. They could not find a better way to do it.

Upon motion of Dr. Pickett, seconded by Dr. Travis, this portion of the report was adopted.

We approve the report of the Committee on Maternal and Child Health, which committee has recommended that the floor of the House of Delegates be extended to Dr. A. E. Hansen, of the Department of Pediatrics of the University of Texas School of Medicine, to present his plan as director of the William Buchanan Foundation of Child Health program.

Upon motion of Dr. Pickett, seconded by Dr. Eckhardt, this portion of the report was adopted.

With reference to that part of the Executive Committee Report pertaining to the Annual Session, we commend the Executive Council and the Council on Scientific Work upon the splendid work done in the year 1944, under trying circumstances, and hope that in the very near future all sections may be assembled in one meeting, as has been the practice heretofore.

Upon motion of Dr. Pickett, seconded by Dr. Thompson, that portion of the report was adopted.

We agree with the Council on Scientific Work that Section 3 of the By-Laws, Chapter X, Page 25, 1941 edition, be amended to read as follows:

Amendments to By-Laws Pertaining to Appointment of Section Officers

"Section 3. The President shall appoint a Chairman and Secretary for each section. He shall appoint the Secretary of each section upon the nomination of the Chairman of the section. It shall be the duty of said Chairman and Secretary to, in consultation with the Council on Scientific Work, prepare programs for their respective sections for the next Annual Session following their appointment. Their terms of office shall conclude with the adjournment of the Annual Session for which their respective programs are compiled."

Upon motion of Dr. Pickett, seconded by Dr. Ward, this portion of the report was adopted, and upon motion of Dr. Scott, seconded by Dr. Whigham, the amendment to the By-Laws recommended was adopted.

With reference to the report of the Committee on Malaria, we recognize the problem of malaria, and we recommend that the resources of the State Health Department and Medical School of the State be utilized in combating this menace to the public health; and that the medical profession of Texas be made fully cognizant of all matters concerning malaria and dengue. Special attention should be given to the newer types of malaria parasites imported by war conditions, as reported by the Committee on Malaria.

Upon motion of Dr. Pickett, seconded by Dr. Ward, this portion of the report was adopted.

The Committee approves the report made by Dr. E. W. Bertner, Chairman of the Cancer Committee, who described the work of the M. D. Anderson Cancer Hospital for Research. The medical profession of Texas is highly appreciative of the splendid work that has been accomplished so far by this new institution, and it is felt that the hospital should receive the hearty support of the doctors of Texas.

Upon motion of Dr. Pickett, seconded by Dr. Jackson, this portion of the report was adopted.

The Committee approved the resolution presented by the Section on Public Health, urging the establishment of a School of Public Health in Texas, and would recommend that such schools be established in connection with each Class A medical college in the state. The resolution follows:

Resolution Urging the Establishment of a School of Public Health

Whereas, there is no recognized School of Public Health in this section of the United States, and

Whereas, there are many public health problems in the area which require the services of trained public health personnel, and

Whereas, there are 254 counties in Texas which need the services of adequately trained public health personnel, therefore be it

Resolved, that the House of Delegates of the State Medical Association urge upon proper authorities in the state, whether state officials or the management of medical colleges, to establish such a teaching institution at some proper point in the state.

Upon motion of Dr. Pickett, seconded by Dr. Jones, this portion of the report was adopted.

The Committee endorses the recently organized International Medical Congress, which is now sponsored by the Texas Tuberculosis Association and the Southwest Texas District Medical Society, and recommends that this Congress be endorsed by the State Medical Association of Texas.

Upon motion of Dr. Pickett, seconded by Dr. Whigham, this portion of the report was adopted.

Your Committee recommends that the State Medical Association recognize the necessity of properly supervised teaching of Physiotherapy and its practice.

Upon motion of Dr. Pickett, seconded by Dr. Ward, this portion of the report was adopted.

Dr. Pickett: This report is signed by Drs. J. M. Trible, G. W. N. Eggers, M. Jarmon and B. E. Pickett, Chairman.

Upon motion of Dr. Pickett, seconded by Dr. Moore, the report of the Reference Committee on Scientific Work was adopted as a whole.

President Venable: Now gentlemen, it becomes my very great pleasure to introduce to you Dr. A. E. Hansen, of the Department of Pediatrics of the University of Texas School of Medicine. He is recommended as the guest of the Committee on Maternal and Child Health. Dr. Hansen. (Applause.)

Dr. A. E. Hansen, of the Department of Pediatrics of the University of Texas School of Medicine then addressed the House of Delegates. The address will be published in an early number of the JOURNAL.

Dr. A. A. Ross, Chairman of the Reference Committee on Resolutions and Memorials, then presented the report of the Committee, as follows:

RESOLUTION OF APPRECIATION REFERENCE COMMITTEE ON RESOLUTIONS AND MEMORIALS

The House of Delegates of the Texas State Medical Association, hurrying to the close of its two-day session, and fully realizing the unusual conditions imposed by the war, desires to express its gratitude to the City of Dallas, and the men of medicine residents here, for the many courtesies we have received while sojourning among them.

There has been no unseemly crowding, the hotel accommodations have been adequate, and the service has been better than we had a right to expect. We return to our homes and take up our daily burdens with pleasant memories of the North Texas metropolis and its population, perhaps doubled during the last three years.

Some of us from farther south may believe that Houston is the Texas metropolis, but we acknowledge with, we hope, becoming modesty, that she must look well to her laurels, else she will soon be displaced as the greatest city in the Southwest.

Again, we thank every one in this great city. We no longer look on Dallas as a way-station on a navigable Trinity, between the head of navigation at Fort Worth, and the Gulf, but as the great metropolis that she is. We shall come again, certainly when the war has been won, and see our boys now in the service take over "you and us," and we may come even at an earlier date—who knows.

Again, we thank you. God bless our common country, tie us together as brothers in its defense, and give us peace with victory before too long, and without too much sacrifice.

Respectfully submitted,
A. A. ROSS, Chairman,
B. L. JENKINS,
L. C. POWELL,
R. E. UTLEY,
JOE D. NICHOLS.

Upon motion of Dr. Ross, seconded by Dr. Jackson and others, the resolution was adopted.

Dr. C. E. Scull, Chairman of the Board of Councilors, then presented the report of the Board of Councilors, as a Reference Committee, as follows:

REPORT OF BOARD OF COUNCILORS AS A REFERENCE COMMITTEE

We recommend the election of the following as Honorary Members of the Association.

Dallas County: Dr. Charles M. Rosser, Dallas, born 1862, member of the State Medical Association continuously from 1904 through 1943.

Dallas County: Dr. Sam Webb, Dallas, born 1882, member of the State Medical Association, 1907-1911; 1913 through 1943.

El Paso County: Dr. Willis Willard Waite, El Paso, born 1876, member of the State Medical Association 1923 through 1943.

Galveston County: Dr. Wiley Junior Jinkins, Galveston, born 1887, member of the State Medical Association. 1915-1921; 1923 through 1943.

Harris County: Dr. Joseph Elbert Daniel, Houston, born 1878, member of the State Medical Association, 1905-1922; 1924 through 1943.

Polk-San Jacinto Counties: Dr. J. R. Towns, Livingston, born 1860, member of the State Medical Association, 1904-1913; 1925-1930; 1938 through 1942, honorary.

Dr. Scull: I move that they be elected to honorary membership.

The motion was seconded by Dr. Wilson and carried.

President Venable: They are elected to honorary membership in the State Medical Association.

President Venable: If there is no further business we now come to the election of officers.

The following will act as Tellers, J. W. David, C. O. Terrell, A. C. Scott, Edward Johnson and W. R. McWilliams.

ELECTION OF OFFICERS

Upon proper nomination, the following officers, councilors and committee members, were elected:

PRESIDENT-ELECT

Dr. C. C. Cody, Houston.

VICE-PRESIDENTS

Dr. R. G. Johnson, New Gulf.
Dr. E. W. Wright, Bowie.
Dr. H. E. Whigham, McAllen.

TRUSTEE

Dr. J. B. McKnight, Sanatorium, to succeed himself.

COUNCILORS

Second District, W. E. Ryan, Midland, to succeed himself.

Seventh District, Dr. R. T. Wilson, to succeed himself.

Eighth District, Dr. F. J. L. Blasingame, to succeed himself.

Ninth District, Dr. J. E. Clarke, to succeed himself.

Tenth District, Dr. A. E. Sweatland, to succeed himself.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Dr. H. R. Dudgeon, Waco, to succeed himself.
Dr. B. E. Pickett, Carrizo Springs, to succeed Dr. A. A. Ross, of Lockhart.
Dr. E. H. Cary, of Dallas, to succeed himself.

ALTERNATE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Dr. E. W. Bertner, Houston, to succeed himself.
Dr. H. Leslie Moore, Dallas, to succeed himself.
Dr. A. C. Scott, Jr., Temple, to succeed Dr. B. E. Pickett, of Carrizo Springs.

MEMBER COUNCIL ON MEDICAL DEFENSE

Dr. A. P. Howard, Houston, to succeed himself.

MEMBER COUNCIL ON SCIENTIFIC WORK

Dr. R. B. Alexander, Waco, to succeed Dr. Jack Daly, Fort Worth.

MEMBER COUNCIL ON MEDICAL ECONOMICS

Dr. H. R. Dudgeon, Waco, to succeed Dr. Tom B. Bond, Fort Worth.

MEMBER COMMITTEE ON LEGISLATION

Dr. J. Allen Kyle, Houston, to succeed himself.

MEMBER COMMITTEE ON COLLECTION AND PRESERVATION OF RECORDS

Dr. H. W. Cummings, Hearne, to succeed himself.

MEMBER COMMITTEE ON HEALTH PROBLEMS IN EDUCATION

Dr. W. S. Barcus, Fort Worth, to succeed himself.

MEMBER COMMITTEE ON CANCER

Dr. George T. Caldwell, Dallas, to succeed himself.

MEMBER COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION

Dr. Dick P. Wall, Galveston, to succeed himself.

President Venable: The next order of business is the selection of the time and place for the next Annual Meeting.

Secretary Taylor: In this connection, the following communication has been received from the Galveston County Medical Society:

Dear Dr. Taylor:

At the regular meeting of the Galveston County Medical Society on Friday, April 14, 1944, a resolution was unanimously adopted by the Society extending a cordial invitation to the State Medical Association to meet in Galveston in 1945.

We are joined in this invitation by the Galveston Chamber of Commerce, which feels that we will be able to adequately take care of the State Medical Association visitors at that time. The Hotel Galvez is being returned to its owners on June 30, and it will be reopened for public use shortly after that.

Also, Galveston's new $1,500,000 pleasure and convention pier is soon to be opened to the public, and will be available for use at that time.

Hoping that the House of Delegates may act favorably on this invitation, I am

GEO. S. MCREYNOLDS, M. D., Secretary.

Upon motion of Dr. Moore, seconded by Dr. Scott, the invitation was unanimously accepted, with the proviso that final decision be left with the Executive Council.

There being no further business, and following a round-table discussion for the good of the order, and upon motion of Dr. Travis, variously seconded, the seventy-eighth general session of the State Medical Association of Texas adjourned *sine die*.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, Chicago, June 12-16, 1944. Dr. James E. Paullin, Atlanta, Georgia, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. James A. Ryan, Covington, Kentucky, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum. Dr. W. H. Browning, Shreveport, La., President; Dr. Alan Cazort, 702 Donaghey Building, Little Rock, Arkansas, Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Major G. D. Carlson, M. C., U. S. Army, Fort Sam Houston, President; Dr. Herman Klapproth, Sherman, Secretary.

Texas Club of Internists, San Antonio, September, 1944. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, San Antonio, May 3, 1944. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association. Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Galveston, October. Dr. Q. B. Lee, Wichita Falls, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Titus Harris, Galveston, President; Miss Lucille Allen, Highland Park High School, Dallas, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Lubbock, October 10, 11, 1944. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society. Dr. F. T. McIntire, San Angelo, President; Dr. R. R. Lovelady, Santa Anna, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. Albert Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society, Bryan, July 11, 1944. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

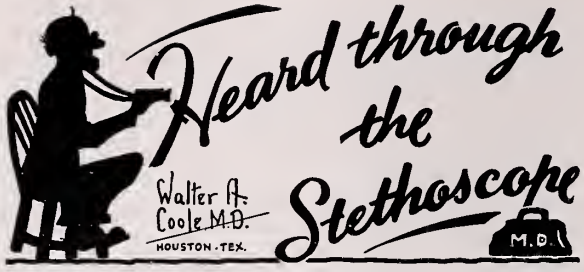
Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers. Abilene, Secretary.

Fourteenth District Society, Greenville, June 20. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

WARNING CONCERNING USE OF DORYL

A warning to physicians to exercise care in the use of "Doryl," a crystalline preparation intended only for use in the treatment of eye diseases, is made by *The Journal of the American Medical Association* in its December 18 issue. Deaths have recently been reported following injection of the preparation, *The Journal* says, explaining that the drug "is available as a solution in ampules for intramuscular injection and as crystals for use in preparing solutions for the eye. Because the crystals also have been marketed in ampules, errors have been made in preparing these crystals for injection rather than using the available ampule solution for intramuscular use. The deaths which followed injection were due to the fact that the concentration was several hundred times greater than it should have been. . . ." Despite changes in labeling and packaging, at least two deaths have since occurred. The firm has now asked for the return of all Doryl shipped prior to October 1, 1943. "Physicians," *The Journal of the A. M. A.* warns, "should examine carefully their own supplies to prevent further accident."



A page from the *physician's* diary: "It seems to me that the family doctor left behind in what is so euphemistically termed *civilian life*, as he observes the panorama of human emotions ebb and flow through his office, can see some pattern of good in this gigantic global conflict which touches more or less violently the life of every individual—that is, provided he can close his mind to the sacrifice of human life and the untold suffering of war-stricken people. Nature notoriously follows the same pattern over and over again in large and small phenomena—as for example the 'cocked-hat' curve of universal statistics. The religiously-minded can see in the seething cauldron of war the deft touch of a divine hand. The super-scientist can see the necessity for expending the cumulative maladjustments of peoples and nations in violent conflict in order to make way for a sort of international emotional stability; and it is true that war is a kind of collective hatred which must expend itself. There is no difference between little hatreds as between ourslves as men and women, and the collective hatred of a nation. It is habitual at this time to "view with alarm" the many bizarre reactions to war such as juvenile delinquency, universal nerve tension, national nutritional deficiencies, but these things have always been, to a more or lesser extent. On the other hand a nation existing smug and complacent under too ideal social conditions becomes soft and morbidly introversive. Life itself, in an ideal state, is only a form of limited perpetual motion, utilizing only its cumulative energy for its own needs and creating nothing. Fortunately for each successive posterity, with the exception of a brief period *in utero*, life does not exist in an ideal state and the violent impact of man and his environment induces the 'sweat of the brow, the effort of the mind, and the anguish of the soul'—those essential human stirrings which bring about the creative art that enriches the good earth with memories, pictures, incidents, cathedrals, interpretations, and making a more delightful and ennobling pattern for each subsequent generation of man to follow. Incidentally, the reaction and retrospect of such individual and collective human stirrings produce the elusive and much-sought after state of mind we term variously 'enjoyment,' 'contentment,' and 'happiness.' This is not a bombastic effort of mine to excuse war. It is only the groping effort of a single saddened and disillusioned physician to grasp a rational straw of reason in the Armageddon of today."

* * *

Illusive, dammit!

Thoughts must fill my mind with words,
And make my busy hours stray;
But when I want them for this column
Silently they steal away!

* * *

Why, Doctor!

"Now," smiled *Dr. J. A. Wolf* of Austin, "can you remove your clothing without blushing?"

The young lady suspiciously replied, "Oh, yes; it's afterward that I'll blush."

Fischerisms

"Life is a ticket to the greatest show on earth. As a doctor you'll have a front seat."

"God speaks only in monosyllables."

"I am suspicious of all who agree with my religion."

"A flustered doctor is the most useless and despicable of men. Read Osler! His doctrine of *Aequanimitas* should be your first and last lesson."

"You must learn to talk clearly. The jargon of scientific terminology which rolls off your tongues is mental garbage—just a string of five-dollar words which you use without understanding."

"Learn to make glorious the ordinary of the day's work. Artists paint sunlight with emetics, the juice of fruit pests, and camels' dung."

"Sweat silently. Let's have no squawking about a little expenditure of energy."

"Quit bellyaching. Doctors die like Socrates."

—Martin H. Fischer as recorded by Howard Fabing.

* * *

That's telling him!

Dr. W. A. Wilbert of San Antonio was approached by the chronic hypochondriac with a bilious gleam in his eyes that indicated that he was down on the world and intended to take it out on the Doctor.

"And how does it happen," he snapped with nasty sarcasm, "that your nurse isn't sitting on your lap this morning?"

"Oh, that!" replied *Dr. Wilbert* imperturbably. "This is her day off."

* * *

"How Not to Relax"

My patients swear that they'll slow down—
Their "war-nerves" are so over-taxed.
Right now they're hystericaly tense
Trying so hard to be relaxed.

* * *

Frustration

Dr. Allen Hayes of Fort Worth was psycho-analyzing the unhappy patient.

"Is your wife always thinking of your happiness?"

"Yes!" snapped the harassed patient. "She's even hired a detective to check up on it."

* * *

Culled from Nurses' Examination Papers

"The central nervous system is a big nerve down the back-bone which helps you to show feeling."

"Vital Statistics means there is always an overproduction of females of the species, and no matter how many are produced there is always a contest over a few of them."

"Filtered water is water that a horse has maybe stepped in and should not be drunk."

"A dead body is called a caucus. A dead gentleman is called a corps and a dead lady is called a corpse."

Solace

For some strange reason now and then
Fantastic wars descend on men;
Since no one can escape them—so,
Remember that they always go!

* * *

Be seein' you at the medical meeting.

HOSPITALS NEEDING INTERNS AND RESIDENTS

Austin State Hospital, Austin. Capacity 2,810; admissions 613. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity

192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Lubbock General Hospital, Lubbock. Capacity 100; admissions 4,587. C. E. Hunt, Superintendent (2 residents).

Methodist Hospital, Houston. Capacity 125; admissions 4,250. Mrs. Josie M. Roberts, Superintendent (1 resident).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Mrs. Alfreda P. Hassell, Superintendent (1 intern now; 1 October 1; 1 January 1, 1945.)

Santa Rosa Hospital, San Antonio. Capacity 329; admissions 13,672. Sister Mary of Lourdes, Superintendent (1 resident).

Wichita General Hospital, Wichita Falls. Capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (1 resident September 1).

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during May:

Capt. A. B. Goldston, Fort Bragg, N. C.—*Thrombophlebitis, therapy* (5 articles).

Dr. J. E. Smith, Weatherford—*Arsenic and Arsenic Compounds, toxicity* (20 articles).

Capt. Robert D. Westphal, Camp Maxey—*Diarrhea, etiology and pathogenesis* (27 articles).

Dr. N. A. Elder, Nixon—*Undulant Fever* (21 articles).

Lt. Col. John F. Lubben, Jr., Okmulgee, Okla.—*Prostate, inflammation* (13 articles); *Bladder, drainage* (7 articles).

Capt. Henry Bodner, Harmon General Hospital, Longview—*Bladder, exstrophy* (12 articles).

Dr. R. B. Alexander, Waco—*Headaches* (23 articles).

Dr. W. E. Payne, Slaton—*Arthritis, therapy* (12 articles).

Dr. W. H. Bennett, Marshall—*Sulfanilamide* (27 articles).

Lt. Leopoldo Villareal, Ashburn General Hospital, McKinney — *Pericarditis, adhesive* (13 articles); *Heart, wounds and injuries* (16 articles).

Lt. Col. Richard A. Dathe, Camp Maxey—(1 journal), *Erythema, nodosum* (1 article).

Dr. C. C. Bradford, Godley—(1 book).

Dr. Morton L. Mazer, Harlingen—*Muscles, scalenus* (11 articles).

Lt. Col. G. R. Manske, North Camp Hood—*Thrombophlebitis, therapy* (13 articles).

Capt. Marcus E. Cox, Sheppard Field—*Tumors, plasmoma* (8 articles); *Fever, therapeutic* (15 articles); (1 journal).

Dr. Ellen D. Furey, Beaumont—*Infants, Newborn, hemorrhage* (11 articles).

Lt. Jay K. Wisdom, Camp Maxey—*Heat stroke* (9 articles).

Dr. G. H. Wood, Big Spring—*Penicillin* (10 articles).

Lt. E. Bryce Alpern, Camp Wolters—*Parotitis, complications and sequels* (3 articles).

Mrs. Miriam Collard Meisenbach, Denton—*Music in Medicine* (8 articles).

Dr. J. T. Krueger, Lubbock—*Lungs, surgery* (7 articles).

Library, Southwestern Medical School, Dallas—(2 journals)

Capt Russell G. Smith, S. A. A. C. C., San Antonio—*Jaws, dislocation* (2 articles).

Dr. C. D. Strother, Sherman—*Shock* (25 articles).

Dr. I. L. Thomas, Gainesville—*Trauma* (7 articles).

Dr. F. T. McIntire, San Angelo—*Osteitis, fibrosa* (9 articles).

Maj. M. A. Forbes, Jr., McCloskey General Hospital, Temple—*Granuloma, inguinale* (6 articles).

Dr. B. A. Kirkpatrick, Taylor—*Impregnation* (8 articles).

Capt. M. D. Watkins, Moore Field, Mission—*Eyes, wounds and injuries* (23 articles).

Capt. Alexander E. Pearce, Prisoner of War Camp, Hereford—(1 journal).

Dr. J. P. Gibson, Abilene—*Colic* (8 articles).

Dr. M. L. Stubblefield, Gorman—(3 journals).

Dr. Heinrich Lamm, La Feria—*Dysmenorrhea, therapy* (7 articles).

Dr. Charles F. Bailey, Ballinger—*Histamine, therapy* (7 articles).

Dr. L. R. Byrd, Jr., Port Arthur—(3 journals).

Capt. David A. Nathan, Camp Maxey—*Pericarditis, with effusion* (9 articles).

Accessions

Philadelphia, Lea & Febiger—Kovacs: A Manual of Physical Therapy.

Springfield, Illinois, Charles C. Thomas—Myerson: Tuberculosis of the Ear, Nose, and Throat.

New York, Philosophical Library—Gunther: Practical Malaria Control; Rolleston and Moncrief: Minor Surgery.

New York, National Tuberculosis Association—Siltzbach: Clinical Evaluation of the Rehabilitation of the Tuberculosis.

Philadelphia, W. B. Saunders Company—Pullen: Medical Diagnosis, Applied Physical Diagnosis.

Summary

Reprints received, 582	Local users, 39
Journals received, 174	Borrowers by mail, 36
Items consulted, 143	Packages mailed, 40
Items taken out, 246	Items mailed, 419

Total Items Consulted and Loaned, 808.

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion pictures were loaned by the Motion Picture Lending Library of the State Medical Association during May:

Palo Pinto-Parker County Medical Society, Mineral Wells—*The Care of the Premature Infant* (available for loan through courtesy of Mead Johnson & Company).

Lions' Club, Kirbyville—*Immunization against Infectious Diseases* (available for loan through courtesy of Lederle Laboratories, Inc.).

Parent-Teachers Association, Beaumont—*Immunization against Infectious Diseases* (available for loan through courtesy of Lederle Laboratories, Inc.)

Grayson County Medical Society, Sherman—*Goiter Surgery* (available for loan through courtesy of Mead Johnson & Company); *Sulfonamide Therapy* (available for loan through courtesy of Lederle Laboratories, Inc.)

NEWS

A Pediatricians' Conference for pediatricians of the Southwest was held April 7 and 8, at the University of Texas School of Medicine, Galveston, under the auspices of the Department of Pediatrics and as a part of the Texas Child Health Program, which is under the direction of Dr. Arild E. Hansen, chairman of the Department, informs the Galveston *News*. The conference was splendidly attended.

Dr. Irvine McQuarrie, professor and head of the Department of Pediatrics of the University of Minnesota, special guest speaker, delivered the William Buchanan lecture, the first to be presented by the Child Health Program established under the William Buchanan Foundation through an endowment from the estate of William Buchanan. The following program was carried out during the two days:

MORNING SESSION, APRIL 7

Boyd Reading, M. D., Professor of Pediatrics, University of Texas, presiding.

Opening Remarks—Boyd Reading, M. D., Galveston.

Trends in Pediatrics—Irvine McQuarrie, M. D., Professor of Pediatrics, University of Minnesota.
(Discussants, J. H. Park, Jr., Professor of Pediatrics, Baylor University School of Medicine, Houston; H. Leslie Moore, M. D., Professor of Pediatrics, Southwestern Medical School, Dallas; Chester A. Stewart, M. D., Professor of Pediatrics, Louisiana State University School of Medicine, New Orleans.)

Health Program—Arild E. Hansen, M. D., Professor of Pediatrics, University of Texas School of Medicine, and Director, University of Texas Child Health Program, Galveston.
(Discussants, John G. Young, M. D., Dallas; Frank H. Lancaster, M. D., Houston; J. J. McElhenney, M. D., Austin; J. M. Coleman, M. D., Austin.

AFTERNOON SESSION, APRIL 7

J. H. Park, Jr., M. D., Houston, presiding.

Presentation of Cases by Staff of Children's Hospital, Galveston:
(a) Hypoplastic Anemia—Frances Garbade, M. D.
(b) Lypodystrophy—Boyd Reading, M. D.
(c) Still's Diseases—Alice Gamble, M. D.
(d) Gargoylism—Hugo Klint, M. D.
(e) Congenital Tracheo Esophageal Fistula and Atresia—Edgar Poth, M. D.

Round Table Discussion on Present Status of Immunization Procedures in Children for Uniformity in Recommendations, with David Greer, M. D., Houston, presiding:
(a) Tetanus—John G. Young, M. D.
(b) Diphtheria—E. M. Wier, M. D., Fort Worth.
(c) Scarlet Fever—Max Woodward, M. D., Sherman.
(d) Measles—Edwin G. Schwarz, M. D., Fort Worth.
(e) Smallpox—George O'Byrne, M. D., Corpus Christi.
(f) Whooping Cough—J. E. Ashby, M. D., Dallas.
(g) Typhoid Fever—Frank H. Lancaster, M. D., Houston.
(h) Rabies—M. A. Davidson, M. D., Marlin.

EVENING SESSION, APRIL 7

Various Diseases of Adrenal Glands in Children; William Buchanan Lecture:
"Therapeutic Value of Penicillin in Pediatric Practice"—Irvine McQuarrie, M. D., Minneapolis, Minnesota.

MORNING SESSION, APRIL 8

H. Leslie Moore, M. D., Dallas, presiding

Presentations by Staff of University of Texas School of Medicine:
(a) Influence of Infection on Diabetes—Raymond Gregory, M. D.
(b) Vitamin A Deficiency as Affecting Skin Tissues—Chester Frazier, M. D.
(c) Dimensional Electrical Axes in Varying Atrial Mechanisms—George M. Decherd, M. D.
(d) Experimental Studies on Sulfa Drugs in Enteridities—Edgar J. Poth, M. D.
(e) Sulfa Compounds in Prevention of Rheumatic Recrudescences in Children—Arild E. Hansen, M. D.

Tuberculosis in Adolescent Age Period: What is Pediatrist's Responsibility?—Chester A. Stewart, M. D.
(Discussants, George B. Cornick, M. D., San Antonio, J. M. Coleman, M. D., Austin).

AFTERNOON SESSION, APRIL 8

Arild E. Hansen, M. D., presiding.

Presentation of Cases by Staff of Children's Hospital, Galveston:
(a) Pleurisy with Effusion—Hugo Klint, M. D.
(b) Bovine Tuberculosis—Frances Garbade, M. D.
(d) Adrenal Tumors—Boyd Reading, M. D.
(e) Atlantoaxial Dislocation—E. E. Wilkins, M. D.
(f) Hookworm Disease—Emmett Essin, M. D. and J. Allen Scott, M. D.

The Causes and Treatment of Hypoproteinemic Edema—Irvine McQuarrie, M. D., Minneapolis, Minn.

During a luncheon session on April 7, at John Sealy Hospital, Dr. Chauncey D. Leake, vice-president and dean of the University of Texas School of Medicine, spoke on "Medical Problems of Adolescence."

Other entertainment features in connection with the meeting included a tea at the Buccaneer Hotel at 5 p.m. on the first day, with a dinner in the evening, and a tea in the afternoon of the second day on the roof of the Children's Hospital.

The Texas Chapter of American College of Chest Physicians held its third annual meeting April 23, in the library building of the State Tuberculosis Sanatorium at Sanatorium. An address of welcome was given by Dr. J. B. McKnight, Sanatorium, followed by the President's Message, delivered by Dr. Alvis E. Greer, Houston. The following scientific program was then carried out:

The Tuberculosis Control Program—Howard E. Smith, M. D., Austin.

Recent Advances in Chest Surgery—George W. Waldron, M. D., Houston.

Post-War Teaching of Tuberculosis—C. M. Hendricks, M. D., El Paso.

Chest Pain—Henry R. Hoskins, M. D., San Antonio.

Presentation of Unusual Cases—Medical Staff, Sanatorium.

The papers presented were discussed by Drs. A. A. Ledbetter, Houston; C. J. Koerth and R. G. McCorkle, San Antonio; Elliott Mendenhall, Dallas, and J. W. Laws, El Paso.

During a business session, held at the conclusion of the scientific program, the following officers were elected: Dr. S. E. Thompson, Kerrville, president; Dr. R. G. McCorkle, San Antonio, first vice-president; Dr. H. F. Carman, Dallas, second vice president, and Dr. Elliott Mendenhall, Dallas, secretary-treasurer.

At the conclusion of the program, Dr. J. B. McKnight was host at a luncheon to those attending.

The National Institute of Cardiology of Mexico was inaugurated April 18, 1944, by President Manuel Avila Camacho in the presence of his Ministers and noted cardiologists from North, Central and South America, advises the Galveston Daily *News*. A bronze medal was struck by the Mexican Government in honor of the occasion and presented to each guest of honor.

The Institute was dedicated to the study of every phase of heart diseases. Causative or etiological factors will be investigated and methods of prevention, alleviation or cure will be studied. Postgraduate courses will be offered to physicians from all parts of the Americas or the world. The University of Texas may collaborate with the National University of Mexico in such arrangements.

Professor Dr. Don Ignacio Chavez of Mexico City conceived the idea of the Institute and had persisted in the prosecution of his original plans until his dream was brought to completion. The building in which the Institute is housed is an imposing structure of ultra-modern design, three stories high, with small four-bed wards and some private rooms for pay patients. The laboratories occupy the entire ground floor. The equipment is modern and adequate. The structure is about the size of the John Sealy Hospital main building and wing.

In connection with the opening of the Institute, a Pan-American Congress on Cardiology was held April 19 to 23, inclusive, during which time papers were presented by outstanding internists of the Americas who have made significant contributions to the knowledge of diseases of the heart and arteries. The Congress had been called by Professor Dr. Don Ignacio Chavez and was a distinct success. Professor Chavez was unanimously elected president, and secretary general of the Pan-American Heart Association, the charter members of which were guests of the Mexican Government at the solemn inaugural ceremonies.

Among those present were cardiologists from the United States, Mexico, Argentina, Chile, Cuba and Uruguay. Texas was represented by Dr. George R. Herrmann of Galveston, Professor of Internal Medicine, University of Texas School of Medicine, and Dr. Joseph Kopeckey, San Antonio, who served as an interpreter and opened the discussion on many of the papers presented.

Food Rationing For Special Cases.—A Food Point Advisory Committee of Tarrant County Medical Society, composed of Drs. J. F. McVeigh, R. B. Grammer, and C. S. E. Touzel, Fort Worth, recently circularized the members of that Society with regard to changes made by the Food Ration Division of the Office of Price Administration. It was pointed out that supplementary ration points will be issued to patients suffering from the following conditions: (1) anemia, primary and secondary; (2) diabetes mellitus; (3) tuberculosis (active); (4) chronic nephritis (nephrotic type); severe hapatitis; cirrhosis liver; (5) chronic suppurative diseases; osteomyelitis; empyema; extensive suppurative lesions of soft parts; (6) those infections in which there is profuse pus formation; severe burns and gastrointestinal lesions, including conditions following operations on the stomach, intestine or colon for ulcer or cancer. Other conditions which might require additional points will also be given consideration.

Physicians were urged to use prescription blanks, giving the name and address of the patient, the diagnosis and the number of additional meats or processed foods needed per week. The patient would then present such prescription to the Food Ration Board as he does an ordinary prescription to his druggist. The following form was suggested:

Mrs. John Roe, 2451 Spring Ave.

Diagnosis: Pernicious anemia.

Requires additional ration points of
4 pounds of meat weekly.

J. T. Doe, M. D.

The Committee pointed out that reasonable requests will be granted without question.

The National Tuberculosis Association at its recent annual meeting in Chicago was attended by more than 900 persons. Dr. H. Frank Carman of Dallas was elected representative director from Texas on the National Board. Dr. McIver Furman of Corpus Christi was elected a director at large, the terms of Drs. Carman and Furman being for two years each. Since the term of Dr. E. G. Faber of Tyler, elected at the last meeting of the National Tuberculosis Association, does not expire until 1945, Texas now has three directors on the National Board.

News releases during the meeting of the National Tuberculosis Association revealed that the U. S. Public Health Service, in cooperation with state health departments and local tuberculosis associations, had made chest x-ray examinations of 685,817 persons as of April 1, 1944. Of this number, 1.3 per cent had tuberculosis and were in need of clinical study. Units of the Public Health Service have examined more than 125 population groups in eleven states, the District of Columbia, and Mexico. These surveys included 118,000 government workers in Washington, D. C., and 100,000 Mexican laborers coming into the United States under the War Food Administration Program, according to Dr. Herman E. Hilleboe, U. S. Public Health Service, who addressed the first general session of the Mississippi Valley Conference on Tuberculosis meeting in conjunction with the National meeting. Contrasting the 10 per cent minimal cases among sanatoria admissions, Dr. Billeboe stated that 62 per cent minimal cases were discovered by mass x-ray studies, 31 per cent were moderately advanced, and only 7 per cent far advanced.

The Committee on Therapy of the American Trudeau Society, an organization of 2,000 tuberculosis specialists in tuberculosis, which serves the medical section of the National Association, issued a warning that diasone, the drug recently hailed as "a cure for tuberculosis," should not be used in routine treatment of the disease but must be considered as yet "as purely a project in clinical investigation." Further clinical investigations on diasone, under careful control, are now in progress, and it is the expressed opinion of the Committee that such further controlled clinical investigations are distinctly desirable. The Committee on Therapy has reviewed information so far made available to it on the effects of diasone, promizole, diaminodiphenylsulfone, and other related drugs in the treatment of tuberculosis in guinea pigs, and pointed out that while these drugs have shown in varying degrees ability to check tuberculosis in guinea pigs, that the disease in guinea pigs differs in many ways from that in human beings. The medical profession will be promptly informed of further developments through publication in medical journals. These drugs are restricted by federal regulation to experimental studies in institutions with research facilities.

The Committee recommended that within one month after employment in a hospital, each employe should have a medical examination, including a chest x-ray study, and the periodical physical examination including chest x-ray studies should be made of hospital employees at intervals of not more than one year for a minimum period of four years.

Statistics reported at the National Tuberculosis Association meeting indicate that tuberculosis is increasingly becoming a disease of adults and increasingly a disease of men. In 1942, the average age of Americans who died of tuberculosis was 33 years. In 1943, the average age was 42. In the last two decades the average age of men at death had increased nine years, while the average age of women who die of the disease advanced only four years.

It was reported that over 6,000 men who entered the Armed Forces of this country have been discharged because of tuberculosis and by last November, 40 per cent of these were leaving veterans' hospital against medical advice.

The Southern Medical Association Executive Committee, at a meeting April 4 in St. Louis, unanimously decided to hold the usual type of meeting this November, and accepted the invitation of the St. Louis Medical Society to meet in St. Louis. The dates of the meeting are November 13-16. While the meeting will be streamlined, and there will be no official entertainment, such as presidents' reception and ball, reunion dinner, fraternity luncheons, golf or trap-shooting tournaments, more program activities are planned for than were held last November, although not as extended as during prewar meetings. All activities of the organization, including registration, scientific meetings, scientific, technical and hobby exhibits and sessions of organizations meeting conjointly with the Southern Medical Association will be housed under one roof in the Municipal Auditorium. Dr. Curtice Rosser of Dallas attended the meeting of the Executive Committee and was one of the speakers of the St. Louis Medical Society on the evening of April 4.

Dr. James A. Ryan of Covington, Kentucky, vice-president of the Southern Medical Association, acceded to the office of president, filling the vacancy created by the death of Dr. W. T. Wootton, of Hot Springs National Park, Arkansas, on May 2, 1944. Dr. Ryan will preside at the St. Louis meeting.

The Texas State Heart Association, which held its annual meeting April 20, at the Hotel Texas, Fort Worth, in conjunction with Sectional meetings of

the State Medical Association, elected the following officers for the ensuing year, advises the Fort Worth *Star-Telegram:* Dr. Victor E. Schulze, San Angelo, president; Dr. F. W. Hudson, Stamford, vice-president and Dr. H. B. Whiting, Wichita Falls, secretary-treasurer (re-elected).

The new president, Dr. Schulze, stated that the major task of the Association in 1944 will be promoting diagnosis and proper treatment of rheumatic heart disease, especially among children. He stated that the Association expected to investigate the availability of federal funds to assist in the work, since the disease has been recognized with increasing frequency in certain areas of Texas.

Auxiliary Committee for San Angelo Board of Health.—Ten San Angelo organizations interested in public health promotion will be asked to name representatives to an auxiliary committee which will work with the San Angelo Board of Health in an advisory capacity, informs the San Angelo *Standard-Times.* Dr. Victor E. Schulze, chairman of the Board of Health, stated that the formation of such auxiliary committee has as its purpose the assurance of complete cooperation of all participating agencies, avoidance of duplication, and a step toward a better-rounded program. The ten agencies invited to appoint representatives on the committee, included the Baby Clinic, Tom Green County Tuberculosis Association, Mother's Health Center, county health nurse, the San Angelo public schools, the Public Welfare Association, Red Cross, Crippled Children's Society, the Infantile Paralysis Foundation committee, and the San Angelo Safety Council.

Tuberculosis Institute.—The Tom Green County Tuberculosis Association sponsored a two-day tuberculosis institute at San Angelo, April 25 and 26, the first of its kind to be sponsored by local associations, according to Miss Pansy Nichols, executive secretary of the Texas Tuberculosis Association, informs the San Angelo *Standard-Times.*

Speakers included Dr. Elliott Mendenhall, Dallas; Dr. H. C. Samuels, and Dr. David McCullough, State Tuberculosis Sanatorium; Dr. Howard E. Smith, State Department of Health; and Dr. W. D. Anderson, San Angelo. The institute was held at the Hotel Cactus and was well attended.

Miss Nichols stated that the Texas State Department of Health has about 10,000 x-ray films of men who have been rejected by the Armed Services because of chest abnormalities, of which number about 6,400 have been rejected because of tuberculosis. She reported further that El Paso, Fort Worth and Houston tuberculosis associations have their own equipment for making 35 mm. roentgenograms. If these roentgenograms exhibit suspicious changes, 14 x 17 roentgenograms are then made, which are more dependable for diagnosis. She asserted that Texas has from 3500 to 4000 deaths from tuberculosis annually. It has been computed that there should be a minimum of two sanatorium beds for each annual death; therefore, about 4,500 more beds are needed to meet minimum standards, according to Miss Nichols.

The Texas death rate from tuberculosis has been going down, but the rate is 50 per 100,000 as compared to the national rate of 44. The problem in this state concerns special race groups. The death rate among Anglo-Americans in Texas is 30 per 100,000, 96 among Negroes, and 215 among Latin-Americans.

The American Optical Company Wins Army-Navy "E" for the third time, according to a recent announcement by the Under Secretary of War. The award is made for high achievements in the production of war material. Vital military products are manufactured by the American Optical Company for the Army Medical Department, the Army Air Forces and other branches of the U. S. Army, Navy and Marine Corps. These products include spectacle frames, lenses and cases and the necessary prescription service for the Army through American Optical Company branch offices; mobile optical units, as well as eye-examining instruments; aircraft training gunsights, and many types of military goggles for the Armed Forces.

Penicillin Studies.—The department of pediatrics of the University of Texas School of Medicine, Galveston, has been selected to study the effects of penicillin in the treatment of congenital syphilis, according to advices received by Dr. Arild E. Hansen, chairman of the department and director of the University of Texas Child Health Program. The selection was made by the subcommittee on venereal disease of the National Research Council. The two types of cases in which penicillin has been authorized for treatment in the study are: (1) early or infantile congenital syphilis, which has not been previously treated, whether or not clinical manifestations are present, and (2) late congenital syphilis, whether or not previously treated, in which there are different clinical manifestations such as interstitial keratitis, deafness, neurosyphilis, etc. A number of beds in the Children's Hospital have been reserved for this specific purpose. Patients will be kept in the hospital for one month's treatment and will be admitted at the request of their physician through the University of Texas diagnostic teaching clinic in the usual manner. Practicing physicians of the state are being offered a worth-while opportunity to contribute to the solution of a very difficult problem, states Dr. Hansen.

This penicillin to be used in these studies is in addition to that granted to Dr. Chester N. Frazier for use in the department of dermatology and syphilogy for the treatment of primary and secondary syphilis.

The Maternity Mortality Committee, recently appointed by Harris County Medical Society for the purpose of studying causes of death of mothers and infants in obstetrical cases in Houston, recommended a premature infant nursery for city-wide use, at its first meeting in the Medical Arts Auditorium April 24. The nursery would be air-conditioned, and humidity would be controlled. The staff would consist of specially-trained nursing personnel. Explaining the need for the nursery, Dr. R. A. Johnson, chairman of the committee, stated that records kept in St. Joseph's Infirmary showed that of 824 premature babies born there since 1938, 385 died, a mortality rate of 46.6 per cent. As a result of these findings, on December 3, 1943, St. Joseph's Infirmary opened a specially planned nursery for premature babies, operated by shifts of nurses trained in the care and feeding of infants. The death rate promptly fell from 46 per.cent to 16 per cent, and only 8 of 51 premature babies born in the hospital since December 3 died.

The proposed nursery recommended by the committee, would not be connected with any Houston hospital, and would be available to all Houston or Harris County premature babies. Nurses would be on duty twenty-four hours a day to prevent choking or accidental smothering, and to prepare special diets that may have to be administered many times a day in some cases.

It was pointed out that records from the Children's Bureau of the U. S. Agriculture Department show that 40 per cent of all deaths in newly-born infants throughout the United States in 1940 were due to premature births.

The second meeting of the twenty-member committee scheduled for May 24, will be devoted to a study of fatalities in women occurring between Jan-

uary 1 and April 24 during pregnancy, childbirth, or the postnatal period.—*Houston Press.*

Addition to Hermann Hospital Properties — The first building to be erected on the Hermann Hospital properties from funds other than the Hermann Estate will be a new interns' home which, when completed, will free twenty-two beds in the hospital proper that have already been pledged to the M. D. Anderson Foundation for Cancer Research for patients undergoing cancer treatment, Col. James Anderson, vice-president of the Hermann Hospital Board of Trustees, said at ground-breaking ceremonies May 4. The new building will be a one-story, "L-shape", 48'x110', with a wing 37'x38', and will contain thirteen bedrooms, lounge, library and three baths. It will be of masonry construction, stucco exterior with mission tile roof, and with the same general architecture as the main hospital building and the nurses' home.—*Houston Press.*

Military Personals

Col. Raymond E. Scott, M. C., U. S. Army, of San Antonio before entering the armed service, has been decorated by the American, British and French Forces for his service as a commanding officer of an Evacuation Hospital in Tunisia. Colonel Scott was awarded the Legion of Merit of the United States, the Legion of Merit by Great Britian, and the Croix de Guerre by the French.

Colonel Scott entered the Army in 1914, was stationed at Fort Sam Houston in 1915 and 1916, and returned in 1925. He resigned in 1929, and opened a clinical laboratory in San Antonio but accepted a reserve commission at that time and was called to active duty in July, 1941. He is at present stationed at the England General Hospital, Atlantic City.

Lt. Col. J. Henry Grammer, M. C., U. S. Army, of Fort Worth prior to his entry into the Army Air Forces, was recently awarded the Legion of Merit for exceptional meritorious conduct in performance of outstanding service in New Guinea from August 1 to November 14, 1943, states the Fort Worth *Star-Telegram.* Colonel Grammer has been serving in Southwest Pacific battle area since July, 1942.

Dr. William E. Ryan of Abilene was recently promoted to the rank of lieutenant colonel in the medical corps of the Army, states the Abilene *Reporter-News.*

Dr. Roy Lee Riddel, Jr. of Lubbock, has been called to active duty in the U. S. Naval Reserves, with the rank of Lieutenant (jg).

Dr. George E. Rohrer, Houston, who has been commissioned first lieutenant in the U. S. Army Medical Corps, will report in July for active duty at Carlisle Barracks.

Lt. Roland B. Anderson, M. C., U. S. Naval Reserve, of Seguin, Texas, has been ordered to active duty at the Naval Air Training Station, Corpus Christi, on or before June 5.

Personals

Dr. Minnie L. Maffett of Dallas, was awarded the Zonta Service Award at a public dinner of the club at the Melrose Hotel, April 14, states the Dallas *Times Herald.* The award was made to Dr. Maffett for her many services for the welfare and health of the community and particularly for her signal service for the advancement of the cause of women. It is stated that largely through her efforts as president of the National Federation of Business and Professional Women's Clubs, that the War Department was induced to offer army commissions to women physicians; and that she was active in the local movement to obtain recission of one of the long-standing rules of the Dallas Board of Education as a result of which women teachers who marry are not required to resign their positions in the city school system. Dr. Maffett was the first president of the Texas Federation of Business and Professional Women's Clubs.

Dr. H. P. Thomas of the medical staff of the Texas Tuberculosis Sanatorium was recently appointed medical director of the Woodmen of the World Memorial Hospital, San Antonio, advises the San Antonio *Light.* Dr. Thomas served the first residency in tuberculosis at the Woodmen of the World Memorial Hospital after it was approved by the American College of Physicians and the American Medical Association.

Dr. R. B. Homan, Jr., El Paso, was operated on at the Mayo Clinic May 2, states the El Paso *Herald-Post.* Last reports were that he is convalescing satisfactorily. Dr. Homan has been ill with stomach trouble for some time.

Dr. E. V. DePew of San Antonio was nominated recently by the directors of the Chamber of Commerce to Mayor Gus B. Mauermann for appointment as a member of the San Antonio Board of Health to succeed Dr. H. J. Schattenberg, who resigned to resume his place as a consultant to the State Board of Health, informs the San Antonio *Express.*

Word has been received of the death of *Dr. L. L. Wade* of Ryan, Oklahoma, practicing physician of that city, who was a native of Decatur, Texas. Dr. Ryan received his academic education in this state, and medical education in the old Fort Worth Medical College, and Southwestern University, graduating from the University of Oklahoma. He served as first lieutenant in the first World War.

SOCIETY NEWS

Bell County Society

April 5, 1944

(Reported by J. H. Greenwood, Secretary)

A Report on the Malarial Situation in Bell County—Charles Phillips, Temple.
Spinal Anesthesia—Charles M. Simpson, Temple.

Bell County Medical Society met April 5, at the Kyle Hotel, Temple, with twenty-six members and nine visitors present. The scientific program as given above was carried out.

Charles Phillips introduced A. E. Ballard, who has replaced Dr. Covington as director of the Central Texas Public Health Unit. Dr. Ballard expressed a desire to work cooperatively with the Society and offered to present at each meeting of the Society a narrative report of the activities of the Unit.

J. W. Pittman moved that Dr. Ballard's offer be accepted, which motion was seconded by Joe Fowler and carried.

President Anderson read a letter from E. A. Rowley, Councilor of the Third District, regarding an increase of State Association dues to $25.00.

Following discussion, Joe Fowler moved that the delegates from the Society be advised that the Society wants to go on record as being in favor of paying whatever dues are necessary for conducting the business of the State Medical Association. The motion was seconded by M. W. Sherwood and carried.

President Anderson appointed O. B. Gober, R. C. Curtis, and Charles Phillips as members of the public health committee for the year.

Brazoria County Society

April 28, 1944

(Reported by Brooks Stafford, Secretary)

Sacral Analgesia (Colored motion picture)—G. J. Hayes, Alvin.

Brazoria County Medical Society met April 28, at the Dow Magnesium Corporation Hospital, Velasco, with fourteen members and five dentists present. After a sumptuous dinner in the cafeteria of the Dow Magnesium Corporation, the Society adjourned to the conference room of the hospital for a scientific program, which was carried out as given above. Dr.

Hayes gave an interesting discussion of the subject of sacral analgesia, which was illustrated by a colored motion picture.

During a business session, a list of minimum charges was discussed and approved unanimously.

W. E. Cox, director of Brazoria County Health Unit, requested that members be more prompt in reporting cases of venereal disease.

The subject of a Women's Auxiliary for the Society was given consideration and will be discussed further at the next meeting, which will be held the last Thursday in May, in Angleton, with dentists of Brazoria County in charge of the program.

Cameron-Willacy Counties Society

May 15, 1944

(Reported by Morton L. Mazer, Secretary)

Gunshot Wounds and Their Treatment.—J. C. Watkins.
Fractures of the Hip and Their Newer Treatment.—Heinrich Lamm.

Cameron-Willacy Counties Medical Society met May 15 at Harlingen. The scientific program as given above was carried out. The paper of J. C. Watkins was discussed by N. A. Davidson, and the paper of Heinrich Lamm by George L. Gallaher.

Dallas County Society

April 13, 1944

(Reported by W. W. Fowler, Secretary)

Mastoiditis Following Sulfonamide Therapy—L. M. Sellers, Dallas.
Things Everyone should know about Allergy—J. H. Black, Dallas.
Palliative Treatment of Incurable Malignant Disease—J. R. Maxfield, Jr., Dallas.
Medical Management of Esophageal Disorders (Lantern Slides)—C. O. Patterson, Dallas.
The Cervix that will not Dilate—Julius McIver, Dallas.

Dallas County Medical Society met April 13, in the Medical Arts Auditorium, Dallas, with forty-two members present. David W. Carter, Jr., president, presided. The scientific program as given above was carried out. The paper of J. R. Maxfield, Jr., was discussed by C. C. Nash; the paper of C. O. Patterson, by H. W. Cochran and J. R. Maxfield, and the paper of Julius McIver by Wayne T. Robinson.

President Carter read a letter from George S. McReynolds, secretary of the Galveston County Medical Society, advising that that Society had adopted resolutions unanimously directing their delegates to propose the name of Dr. A. O. Singleton of Galveston for President-elect of the State Medical Association, at the next annual meeting. The letter solicited the support of Dallas County Medical Society in the election of Dr. Singleton.

White moved that delegates of the Society be instructed to support the nomination of Dr. Singleton, which motion was carried.

Secretary Dr. Fowler read a letter from C. C. Nash, Councilor of the Fourteenth District, advising that the chairman of the Board of Trustees of the State Medical Association thought it advisable, for several reasons, to raise the State Association dues.

Edward White moved that the delegates of the Society be instructed to favor raising the State Association dues.

M. O. Rouse offered a substitute motion that the matter be tabled until investigation could be made as to the amount of funds now in the treasury of the State Medical Association. The motion of Dr. Rouse was seconded and carried.

Mr. Malcom Watson of the State Department of Public Welfare was requested by President Carter to present to the Society the request of the Department for an advisory committee. Mr. Watson stated that the Department was often called upon to supply aid to needy children, and that in order to comply with such requests, the advice of the medical profession was needed. An advisory board from the Society was requested for the Dallas area, which is composed of Dallas, Rockwall and Kaufman counties, which board would then advise the Welfare Department in such cases as necessary. It was voted that the president be authorized to appoint such committee, and the following members were appointed: J. A. Hampton, chairman; B. J. Berger, and Ben F. Harrison.

E. R. Pryor of the Office of Price Administration, spoke on the rationing of food. Mr. Pryor stated that the privilege of rationing had been abused, and that a new order had been received, limiting the number of diseases for which increases in rationing of food may be granted. He further stated that the Board desired an advisory committee from the Society to assist in carrying out its work. The Society voted that the president be authorized to appoint such committee, and the following were appointed: C. O. Patterson, chairman; M. B. Whitten, and Alfred W. Harris.

G. E. Brereton moved that recent graduates of Southwestern Medical College, who have been living in Dallas for four years, be invited to join the Society, so that when they return to civilian life after the war they will already be members of organized medicine. The motion carried.

April 27, 1944

Congenital Bladder Neck Obstruction (Lantern Slides)—John M. Pace, Dallas.
Fractures of the Os Calcis: Newer Methods of Treatment—Ben Schoolfield, Dallas.
Surgical Management of Diverticulitis of the Colon—Jack G. Kerr, Dallas.
Veratrone in the Treatment of Pre-eclampsia and Eclampsia—James E. Harkins, Dallas.

Dallas County Medical Society met April 27, in the Medical Arts Auditorium, Dallas, with thirty-two members present. David W. Carter, Jr., president, presided, and the scientific program as given above was carried out.

James E. Harkins illustrated his paper on veratrone in the treatment of pre-eclampsia and eclampsia with tables showing the number of cases treated, the number of convulsions after the onset of treatment; the time required to control convulsions, and the methods of delivery used. Mortality and morbidity data were also exhibited. The paper was discussed by Julius McIver.

James E. Harkins, Sally Ann Provence, Sophie T. Nowakovsky, Warren A. Shoecraft and Ruth Isadore Allen, were elected to membership on application.

Resolutions of sympathy were adopted on the death of Dr. W. T. White of Dallas.

Mr. Edgar Knight, of the Knight's Motor Hotel, made a statement concerning the operation of his parking station used by physicians in the Medical Arts Building. He stated that because of a ruling of the War Manpower Commission, all men in class 4-F were required to find work in essential industries or be inducted into the Army, and he had found it difficult to retain sufficient help to carry on his business. He expressed the belief that parking stations serving physicians in or near the Medical Arts Building should be declared essential industries, and if the Society could assist in securing such classification for these parking stations, it would enable them to continue to take care of parking of cars of physicians.

C. J. Paternostro moved that the secretary be instructed to write to the War Manpower Commission, setting forth reasons why parking stations near the Medical Arts Building should be declared essential industries. The motion was seconded and carried.

Frank Selecman moved that before such a letter is written, a committee be appointed to investigate the situation, and the motion carried. The following committee was appointed: Frank Selecman, C. J. Paternostro, and Edward White.

C. C. Nash moved that the motion of Edward

White, made at the meeting of April 13, that delegates of the Society be instructed to favor the raising of State Association dues at the meeting of the House of Delegates in May, be taken from the table. The motion was seconded and carried. The original motion of Dr. White was then put and carried.

C. C. Nash called attention to the fact that the Society now has more than 500 members in good standing and is, therefore, entitled to six delegates. Only five were elected at the regular annual meeting. Dr. Nash moved that the secretary be instructed to cast the ballot of the Society for J. C. Alexander as delegate for place No. 6. The motion carried unanimously, and Dr. Alexander was declared elected.

G. E. Brereton was nominated alternate delegate for Place No. 6, and was unanimously elected to that position.

Edward White called attention to the fact that the Society had voted at the meeting of April 13, to instruct delegates to support Dr. Albert O. Singleton of Galveston for the office of president-elect of the State Medical Association. It had been learned that others were to be nominated for this office, and he expressed the opinion that the instructions should be withdrawn, and that delegates should be left free to vote for whom they please, and he moved that such action be taken. The motion was seconded and carried.

Dorothy Wyvell read a letter addressed by officers of the Dallas Pediatric Society to Dr. C. F. Moore, director of the Division of Maternal and Child Health, with regard to the Federal government's program entitled, "Emergency Maternity and Infant Care," in which members of the Society expressed their unwillingness to support the program because (1) pediatricians do not wish to accept payment from the Government for services rendered; (2) many service men's families do not need financial aid; and (3) a real emergency does not seem to exist at present in Dallas. The letter further pointed out that in certain cases in which service men are unable to provide adequate care for their families, pediatricians of Dallas who desire to do everything in their power to relieve them of worry, both as a patriotic service to the man in service and indirectly to our country by enabling him to serve more efficiently, proposed to render pediatric care to sick infants under one year of age of such service men, according to accepted standards, without any compensation from either the government or the patient. Such services would be furnished either individually or as a group, and no part of it would be delegated to any member of the several resident staffs of Dallas hospitals.

Dr. Wyvell moved that the letter be approved by the Society, and the motion carried.

Secretary Fowler called attention to the fact that the Society for several years had been adjourning during the months of July and August, and if they wished to do so this year, action should be taken at the present meeting.

R. M. Barton moved that the Society adjourn during July and August, which motion was seconded by M. S. Seely and carried.

DeWitt County Society

March 15, 1944

(Reported by H. C. Eckhardt, Secretary)

Motion Picture Films on Cancer of the Breast, Thyroid, and Gallbladder.

DeWitt County Medical Society met March 15, at Yoakum, with eight members and one visitor present. The program committee, composed of Yoakum members of the Society, presented a series of motion picture films on cancer of the breast, thyroid and gallbladder. The films dealt with the symptomatology, diagnosis, prognosis and surgical treatment.

During a business session, it was voted to tax each member as a contribution towards the Public Relations Fund of the State Medical Association.

The secretary announced that 1944 dues of all members had been paid.

April 19, 1944

Retroperitoneal Tumor: Case Report—A. J. Bohman, Cuero.
Allergy in an Infant: Case Report—J. C. Dobbs, Cuero.

DeWitt County Medical Society met April 19, in the offices of J. C. Dobbs, W. E. Douthit, and G. M. Duckworth, Cuero, with nine members present.

The secretary had failed to arrange for a program, and for this failure was "severely reprimanded." Cuero members of the Society, however, presented the above interesting program.

The case of retroperitoneal tumor, reported by A. J. Bohman, was in a patient, aged 45. The tumor was removed and found to be spindle cell sarcoma. The patient is now receiving deep x-ray and radium treatment.

The case of allergy reported by J. C. Dobbs, was in a five months old baby. It was discussed by all present.

The case reported by Dr. Burns was that of a woman, aged 58, who had been bedridden for four months because of pain in her leg. A roentgenogram revealed fracture above the middle of the right femur, and the right hip. The patient's left breast was enlarged and very hard. A section showed carcinoma. The fracture of the right femur revealed pathological changes and no surgery was attempted.

Gray-Wheeler Counties Society

April 20, 1944

(Reported by H. L. Wilder, Secretary)

Clinical Cases: (a) Bilateral Atelectasis; (b) Pneumonia—P. C. Christian, Pampa.
Skin Diseases Common to Gray-Wheeler Counties Area—C. H. Ashby, Pampa.
Some of the Common Problems in Diagnosis and Treatment of Skin Eruptions—Everett S. Lain, Oklahoma City.

Gray-Wheeler Counties Medical Society met April 20, at the Snyder Hotel, Pampa, with nineteen physicians present, including visitors from Canadian, Higgins, Borger, Shattuck, and Oklahoma City, Oklahoma. Following a "Dutch" luncheon, the scientific program as given above was carried out.

A case of bilateral atelectasis in a baby two days old was reported by Dr. Christian. Oxygen was administered continuously until the baby's death on the second day. The case of pneumonia reported by Dr. Christian, was complicated by an accumulation of fluid that completely filled one side of the chest. Roentgenograms were exhibited illustrating both cases.

Dr. Lain illustrated his address on common problems in the diagnosis and treatment of skin eruptions with colored lantern slides showing epidermolysis bullosa, psoriasis, purpura, dermatitis herpetiformis, lichen planus, hypertrophic lichen planus, seborrheic dermatitis, pemphigus, erythema multiforme, mycosis fungoides, acture lymphatic leukemia, lupus, leukoplakia, riboflavin deficiencies, erythema nodosum, tinea versicolor, actinomycosis, carcinoma of the tongue, several classes of epithelioma, melanoma, ragweed dermatitis, sulfathiozole dermatitis, and dermatitis due to the many water softeners and soaps.

The papers of Dr. Ashby and Dr. Lain received free discussion, and the many questions asked were answered by the essayists.

Hill County Society

April 14, 1944

Hunner's Ulcer of the Bladder—Wilson Crosthwait, Waco.

Hill County Medical Society met April 14, at Hillsboro, with six members present. The scientific program as given above was carried out.

Morris County Society

April 25, 1944

Morris County Medical Society met April 25, at the office of Dr. E. Y. Anthony, Omaha, with five members and four visitors present. A business and scientific session was conducted.

Nueces County Society

April 11, 1944

(Reported by R. V. St. John, Secretary)

Polycystic Kidneys—R. V. St. John, Corpus Christi.
The Modified Treatment of Syphilis—Turner Moller, Corpus Christi.

Nueces County Medical Society met April 11, at Corpus Christi, with nineteen members present. The scientific program as given above was carried out. Dr. St. John exhibited roentgenograms of polycystic kidneys in the cases reported.

The papers of Dr. Moller and Dr. St. John were freely discussed.

Smith County Society

April 13, 1944

(Reported by Wm. M. Bailey, Secretary)

Contrast Bronchography in the Diagnosis of Diseases of the Lungs—Major Mort D. Pelz, M. C., Harmon General Hospital, Longview.
Bronchiectasis: Its Social and Medical Aspects—Captain Charles E. Gerson, M. C., Harmon General Hospital, Longview.

Smith County Medical Society met April 13, in the library of the Mother Francis Hospital, Tyler, with twenty members and eight visitors present. The scientific program as given above was carried out.

Contrast Bronchography in the Diagnosis of Diseases of the Lungs (Major Mort D. Pelz, M. C.). The ordinary flat, or even studio film of the lung will often fail to show pathological changes in many lung conditions. A large series of roentgenograms were used to illustrate this point. Films made before contrast media was introduced into the bronchi were compared with other films in the same cases made after the introduction of contrast media. In the first instances no pathological changes were evident, while in the latter the pathological lesions were clearly delineated. Standard textbooks of medicine define bronchiectasis as a "chronic, progressive disease of the bronchi or bronchioles, characterized pathologically by dilations of the tubes and an inflammatory reaction in their walls, and clinically by chronic cough and the expectoration of large quantities of purulent, frequently foul-smelling sputum."

It is necessary that many presently held concepts of bronchiectasis be modified, such as the belief that all bronchiectatic patients expectorate large amounts of sputum and it is usually foul-smelling. Also, many physicians and laymen believe that the condition is relatively uncommon, while as a matter of fact, it is probably the most common chronic disease of the chest, being even more prevalent than pulmonary tuberculosis.

The importance of atelectasis and repeated chronic upper respiratory infections in the production of bronchial damage and subsequent bronchiectasis, especially in children, was emphasized. Bronchial stenosis caused by conditions within or outside the bronchus is a cause of bronchiectasis. Fusospirochaetal infection does not have the important causative role in the disease often credited to it. The morbidity of the disease is of greater importance than its mortality rate. The mortality rate and commonest causes were listed. Complications were discussed, particularly fibrosis and emphysema of pulmonary tissue. Prophylaxis against this disabling disease consists of preventive or reduction of severe and protracted respiratory infection by increasing the convalescent period and avoidance of cold, wet climate, if possible. The prompt removal of foreign bodies or tumors in the bronchial tree is of the greatest importance in the prevention of bronchiectasis.

The treatment of bronchiectasis varies from postural drainage to surgery. Bronchoscopic lavage and aspiration gives relief, but the only cure is surgery. Segmental resection, lobectomy and pneumonectomy are recent advances in surgical management, and are attended today by a mortality rate of less than 10 per cent. An earnest plea was made for early surgery.

During a business session, Joel C. Morris was elected to membership by transfer from the Knox County Medical Society, Knoxville, Tennessee.

May 11, 1944

Changing Concepts in the Treatment of Burns—Major Edgar Boling, M. C., U. S. Army, Camp Fannin Station Hospital.
Medical Management of the Common Arthritides—Major Charles F. Lowry, M. C., U. S. Army, Camp Fannin Station Hospital.

Smith County Medical Society met May 11, in the library of Mother Frances Hospital, Tyler, with seventeen members and two visitors present. J. J. Faust, president, presided, and the scientific program as given above was carried out.

Changing Concepts in the Treatment of Burns (Major Edgar Boling, M. C.)—Definitive treatment of burns should be made in the operating room with the use of masks, sterile gloves and other sterile precautions. The patient should be hospitalized in the general surgical ward and isolated. The extent of the burn should be estimated and recorded by Berkow's method: head, 6 per cent; trunk, 38 per cent (anterior surface 20 per cent, posterior surface 18 per cent); upper extremities, 18 per cent (both arms and forearms, 14 per cent; both hands, 4 per cent); lower extremities, 38 per cent (both thighs, 19 per cent; both legs, 13 per cent; both feet, 6 per cent).

Systemic therapy consists of the administration of morphine, which may be given intravenously if warranted, but with caution taken not to overdose; and the immediate administration of plasma, 1000 cc. for each 10 per cent of surface area in the first 24 hours. If more than 20 per cent area is burned, the amount stated is probably the minimum. Hematocrit should be made every twelve hours, and 100 cc. of plasma is given for each 1 per cent of cell volume over 45 per cent; that is, 55 per cent cell volume would call for 1,000 cc. of plasma. Fluids should be given by mouth, or 5 per cent dextrose intravenously, to insure a urinary output of at least 1,000 cc. per 24 hours. One gram of sulfadiazine is given every six hours with an equal dose of sodium bicarbonate, under the usual precautions and laboratory studies. Tetanus toxoid is administered. The diet should be adequate, including protein, carbohydrates and vitamins. Blood transfusions are given for anemia.

Local therapy of the burned area should consist of careful cleansing with neutral soap and water sponging, with the removal of loose dead skin and debris, and irrigation with normal saline solution, after the administration of morphine or, if necessary, general gas and ether anesthesia and, in exceptional cases, sodium pentothal. The dressing may be (1) pressure dressing, with 5 per cent sulfadiazine ointment on fine mesh gauze, covered with gauze dressings, then mechanic's waste and elastic stockinette bandage; or, (2) an occlusive pressure dressing, with sulfanilamide powder to the burned area, covered by wet saline fine mesh gauze covered with gauze dressings, over which either cellophane or oiled rayon with ends sealed with adhesive, is placed, and over all, mechanic's waste. Pressure dressings are changed infrequently. It is important to prevent contractures. Skin grafting is done as soon as possible, usually the third or fourth week.

Medical Management of the Common Arthritides (Major Charles F. Lowry, M. C.)—The primary requisite of good therapy of all types of arth-

ritis is correct diagnosis made as soon as possible. There have been no recent striking advances in medical treatment, and because of the war, there has been a decrease in investigative studies.

Rheumatoid arthritis is the type most frequently seen in civilian practice and the most difficult to control. It is a generalized disease with joint manifestations and the patient should be treated as a whole as in pulmonary tuberculosis. The objectives of treatment are: (1) palliation; (2) removal of causal factors; (3) improved general resistance.

Palliative measures consist of bed rest, the judicious use of analgesics, and physiotherapy. Obvious foci of infection should be removed early, but conservatism should be the rule. If results are not satisfactory with this type of treatment, other methods should be tried. The best results at present are obtained with chrysotherapy, and while toxic reactions are noted they are usually mild and can be controlled by temporary discontinuance of the drug. The preparation and dosage of drugs were discussed. Other methods of therapy include vitamin D administration, roentgen therapy, hyperpyrexia, vaccines and bee venom, but their value in the treatment of rheumatoid arthritis is still questioned. They should be used only after more conservative measures have failed. Observation and treatment of the patient should be continued over a period of years until the disease is definitely arrested or, failing this, to keep him as comfortable and active as possible.

During a business session, T. M. Jarmon, delegate, gave a short report of the proceedings of the House of Delegates of the State Medical Association at Dallas, May 10 and 11.

Wharton-Jackson-Matagorda-Fort Bend Counties Society

April 11, 1944

Typhus and Related Fevers—Ludwik Anigstein, M. D., Associate Professor of Preventive Medicine and Public Health, University of Texas School of Medicine, Galveston.

Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society met April 11, at the U. S. O. Building, Wharton.

Ludwik Anigstein, Galveston, was the guest speaker and reviewed the findings of a typhus and spotted fever survey made in the Gulf Coast region. The meeting was well attended by a large number of members of the Society and by visiting physicians.

Eleventh District Society

April 27, 1944

(Reported by Fred E. Felder, Secretary)

Epiphystitis in Children—J. H. McGuire, Dallas.
Reliable Physical Signs—George L. Carlisle, Dallas.
Dysgerminoma, With Report of Cases—Paul B. Stokes, Crockett.
Protruded Intervertebral Disc, With Particular Reference to the Production of Low Back Pain and Sciatica—James Greenwood, Jr., Houston.
Differential Diagnosis in Chest Diseases—C. B. Young, Tyler.
Treatment of Burns—Granville Q. Adams, Houston.
Total vs. Subtotal Hysterectomy in Benign Conditions of the Uterus—J. C. Morris, Tyler.

During a business session, the following officers were elected for the ensuing year: president, Fred E. Felder, Palestine; vice-president, J. C. Morris, Tyler; secretary-treasurer, C. B. Young, Tyler.

The fall meeting of the Society will be held in Crockett, in October.

BOOK NOTES

[1]**Rehabilitation of the War Injured.** A Symposium edited by William Brown Doherty, M. D., and Dagobert D. Runes, Ph. D. Cloth, 684 pages. Price, $10.00. New York, Philosophical Library, 1943.

[1]Reviewed by James J. Callahan, Major, M. C. Chief, Orthopedic Branch, McCloskey General Hospital, Temple, Texas.

"Wilt thou be made whole."

This book with its many authors, both from this country and abroad, covers the important phases of mental and physical restoration. It delves into the afflicted from neurology and psychiatry, through reconstruction and plastic surgery, orthopedics, physiotherapy and occupational therapy, including vocational guidance and legal aspects of rehabilitation. In other words, it is a complete symposium of the war injured, and a valuable reference book with the latest opinions and treatment.

Many chapters relate the experiences of British specialists, and this is proper as they have had an opportunity to study their injured over a long period. All of the authors are competent, the chapters well written, and it would be very difficult to select any one outstanding contribution. But to give credit to all, may I review some of the more important contributions.

An interesting chapter on head injuries relates experience in the British Army, as they have been able to correlate data through a branch known as the Registry of Head Injuries. In all, they have a complete follow-up of over 1,200 cases and some of the results are given and discussed. Out of 400 of these 1,200 cases, 5.5 per cent of the patients were suffering from traumatic epilepsy, 29 per cent from organic defects, and 65.5 per cent solely or chiefly from psychoneurosis; in July, 1942, in a follow-up of results in 871 cases, including the 400 mentioned, 68 per cent had returned to service duties.

The discussion of reconstruction and plastic surgery deals with skin grafts and gives the author's opinion of requirements for satisfactory results. The skin must be free for movement, of moderate looseness, ability to withstand usual trauma, and development of normal sensation. Burns and their therapy are well handled, and the importance of early skin grafts is emphasized. Reconstruction surgery of the face is clearly explained; that is, rhino-plastic surgery; nasal tip; nasal atresias and lower lid reconstruction.

Orbital implants reveal that various models of formaldehyde—treated beef cartilage, cork, glass, and so forth, were not as satisfactory as the vitallium orbital implant, which Dr. Charles S. Venable devised. He proved that there were no tissue reactions from its use, and that it is not influenced by heat or cold, as are other synthetic plastic materials.

Amputations are well covered and included some of the experiences of British Ministry of Pensions, after twenty-two years of experience in handling over 45,000 cases. The recommendations are similar to the methods used in this country and follow the latest conception—that the ideal stump should be firm, free from tenderness, full joint movement possible and tapering gradually to the end. Scars should not be adherent and should be situated away from points of pressure.

The Oxford dictionary defines rehabilitation as "restoration to privileges." Medicinally, this means restoration to privileges of health, and here physiotherapy comes into its own. The British Emergency Medical Services have fully equipped their orthopedic centers with physiotherapy and occupational departments, which play a very important role in rehabilitation of their war injured.

A special chapter on the rehabilitation in the Royal Air Force reveals their problems, methods of treatment and ultimate results. They found that many patients, who apparently would not coöperate, really needed a change of environment and planned activity, and that following this regime, they responded admirably, so that now rehabilitation begins at a rehabilitation center. Occupational therapy plays an important part as an adjunct of phy-

siotherapy, in that various joints and muscles can be exercised by using machines and other devices.

Not the least of the problems are the deaf or hard-of-hearing ex-servicemen. Lip reading, voice and speech control, are important as an assistance in employment and this program must be worked out. This subject is thoroughly discussed. Legislation in this regard is now contemplated.

Epileptics are discussed, and a plea is made for provision whereby an epileptic may be employed at his own risk.

Tuberculosis is discussed and finally divided into three groups:

1. Convalescent patients, who need good working conditions and medical supervision.

2. Good chronic patients—sheltered employment conditions and medical supervision for the rest of their life.

3. Bad chronic patients—these can do some work for a number of years, usually part time, but need constant medical supervision.

Compensation is always of foremost interest. It should be determined by the adjustment and adaptability of the injured part in terms of partial or complete return of function.

Immersion-foot syndrome and its allay are discussed. Much can be done with suitable treatment and care. The rationale and methods of treatment are given.

[2]**A Hundred Years of Medicine.** By C. D. Haagensen and Wyndham E. B. Lloyd. Cloth, 443 pages. Price, $3.75. New York: Sheridan House, 1943.

This book was written by Dr. Lloyd, an Englishman, for English readers. Dr. Haagensen has successfully adapted the American edition to American readers. The book is primarily intended for laymen, but is offered also to physicians who have a casual or incomplete grasp of the history of medicine. As such it can be highly recommended to both groups.

While the title implies a century of medical progress, it deals largely with the advancements which began with the Golden Era of medicine sixty years ago, and which have continued to the present time.

The authors forsake the customary chronological order of medical history and deal with the development of individual subjects. The book is divided into four sections. The first section gives a cursory survey of medicine prior to the present century. The second section deals with the development of medical science during the past hundred years. Excellent chapters have to do with the phenomenal growth of pathology, bacteriology, and chemotherapy, and with the inevitable part these developments would play in the treatment of disease. Then follow chapters surprisingly full though limited in space, on tuberculosis, vitamins, pernicious anemia, diabetes, diseases of the heart, and nephritis. The growth of our knowledge of each of these diseases is traced historically and, at times, quite dramatically. The insertion of a few pertinent facts about those scientists who have made worthy contributions provides pleasing diversion.

The third section has to do with surgery. It begins with McDowell's Ovariotomy and closes with trained nurses and their importance to medicine and surgery. Intervening chapters cover the subjects of anesthesia, radium, surgical infection and its control, surgical shock, general and special features of surgery, gynecology and obstetrics, orthopedics, urology, neurosurgery, thoracic surgery, and other specialties. The fourth section on the new social aspects of medicine summarizes by charts and figures the measurable results of the tremendous strides made by medicine, surgery, and the allied sciences. The final chapter of this section supplies an interesting discussion of the dilemma in which the doctor finds himself when he faces the subject of adequate medical care for all classes of people; the discussion is interesting, but not conclusive. Clearly, all suggested plans have failed in Europe. The authors see hope in this country in only two directions: The Baker Memorial Hospital plan for patients of limited means, and group practice. Fortunately, the meddlers and bureaucrats of the present are not even mentioned by name in the discussion of this subject, which promises to remain unsolved in this generation or the next.

The faults of the book are few. All the many fine illustrations are misplaced, and they have no relation to the immediate context. For instance, on page 155, reference is made to a figure on page 212. On page 180, mention is made of one of Banting's dogs, the picture of which is shown on page 229. It is unfortunate that the slightest recognition is given to Paul De Kruif when the names of Daniel Drake and Baron Larrey are not even mentioned. Four pages would seem too much for the subject of body-snatching in comparison with six pages for diabetes and ten for anethesia. A line is repeated at the bottom of page 266, and the names Schaudinn and Venable are misspelled. But these faults detract little or nothing from this book, which is good literature as well as good history, and which is agreeably free from that peculiar aridity which, too often, pervades the writings of medical history. A well-chosen bibliography and a good index add to the usefulness of the book.

At a time when political bureaucrats are bent on disrupting the practice of medicine, this book will have a wholesome effect. It will emphasize to the people what the medical profession, untrammeled by meddling politicians, has accomplished and will yet accomplish. It gives to the medical profession a positive position. It substitutes for the defensive mechanism of the lobbyist an aggressive, successful, scientific attainment, and, at the same time, points the way ahead. It should be read by every doctor who respects the past and has hopes for the future. It will be read by many thinking laymen, who, after all, have profited most.

[2]Reviewed by Pat Ireland Nixon, M. D., San Antonio, Texas.

DEATHS

Dr. Elijah Cox Bills of Quinlan, Texas, died March 5, 1944, at his home, of congestive heart failure.

Dr. Bills was born January 22, 1883, at Baldwyn, Mississippi, the son of John D. and Mary Louise (Kimsey) Bills. His academic education was received in the public schools and the McKenzie Preparatory School. His medical education was obtained in the University of Nashville, from which he was graduated with honors in 1904. Following his graduation, he began the practice of medicine at Baldwyn, Mississippi, where he remained four years. In 1908, he located in Quinlan, Texas, where he had practiced continously until his death. During his years of practice, he had taken postgraduate work in New York and Chicago.

Dr. Bills was a member for many years of the Hunt County Medical Society, and after its organization, of the Hunt-Rockwall-Rains Counties Medical Society, State Medical Association, and American Medical Association. In addition to a large practice, he was a civic leader in his community. At the time of his death he was vice-president of the Hunt County Red Cross and was serving as mayor of Quinlan. He was also a vice-president of the Quin-

lan Chamber of Commerce, and chairman of the Quinlan Committee on Civilian Defense. He was a member of the Methodist Church and a Mason. He was held in highest regard as a physician and a citizen of the first rank.

Dr. Bills was married February 18, 1910 to Miss Geneva Mills of Quinlan, who survives him.

Dr. Charles Marion Aves of Houston, Texas, died April 25, 1944, at his home, of cerebral hemorrhage.

Dr. Aves was born November 14, 1881, in Cleveland, Ohio, the son of Reverend Charles S. and Jesse (Hughes) Aves. His father was an Episcopal minister. Dr. Aves was the nephew of Bishop Aves, widely known head of the Episcopal diocese of Mexico. Dr. Aves received his academic education in the public schools of Norwalk, Ohio, Kenyon Military Academy, and Kenyon College, Ohio, and the University of Texas. In 1900, he came to Texas with his family, his father becoming Rector of Trinity Episcopal Church, Galveston. Dr. Aves' medical education was obtained in the medical department of the University of Texas, from which he has graduated in 1907. He then served an internship in John Sealy Hospital, Galveston, followed by two and one-half years residency in the Episcopal Hospital, Philadelphia. In 1911, he located in Houston where he was in the active practice of medicine and surgery until the first World War. In 1916, he accepted a commission as first lieutenant in the Medical Reserve Corps of the U. S. Army, and entered active service as a captain in June, 1917. He was stationed at base hospitals at Fort Sam Houston, Fort Bliss, Camp Grant and Camp Devins. He received special military courses at Washington University and the Mayo Clinic. He saw service overseas, where he was chief surgeon of Evacuation Hospital No. 24 in France. He was later lieutenant colonel and commanding officer of this unit. After the war, Dr. Aves returned to Houston and became chief surgeon for the Humble Oil and Refining Company, which position he had held until his death. He was neurological surgeon at Jefferson Davis Hospital, and on the surgical staffs of Hermann Hospital, and St. Joseph Infirmary, and was chief surgeon of the Baytown Hospital.

DR. CHARLES M. AVES

Dr. Aves was a member throughout his professional life of the Harris County Medical Society, State Medical Association and American Medical Association. He was a Fellow of the American Medical Association and the American College of Surgeons. He was also a member of the Texas Surgical Society and the South Texas District Medical Society. Dr. Aves was a pioneer in industrial medicine in the Southwest and was an accepted authority in this field. He was a member of the Board of Directors of the National Safety Council. He had served the State Medical Association of Texas as chairman of the Committee on Industrial Health. He was a member of the Phi Alpha Sigma medical fraternity. He was a member of the Episcopal Church, and a Mason.

Dr. Aves is survived by his wife, the former Mrs. Ruby Lynn Arnim of Houston, to whom he was married May 15, 1915. He is also survived by two sons, Charles Arnim Aves, a student in Texas Technological College, Lubbock, and Lynn Aves, a Naval Aviation Cadet, stationed at Le Mars, Iowa; a sister, Mrs. George Harbordt, Boerne and Monterrey, Mexico; and two brothers, Dr. Fred W. Aves, Galveston, and Major Paul H. Aves, now in foreign service.

Dr. Albert Fitzhugh Beverly of Austin, Texas, died December 9, 1943, in an Austin Hospital.

Dr. Beverly was born July 3, 1884, in McKinney, Texas, the son of William Tulley and Elizabeth (Fitzhugh) Beverly. His academic education was received in the public schools of McKinney and Bingham Military Institute. His medical education was obtained in Tulane University College of Medicine, New Orleans, from which he was graduated in 1910. After his graduation, he served one year as physician at the Austin State Hospital. For a time he operated a private school in Austin for mentally deficient children. He then entered private practice in Austin, which was his home for the remainder of his professional life. During the first World War, Dr. Beverly entered the medical corps of the U. S. Army as a captain and was first attached to the procurement service. He was then attached to the Royal Canadian Air Force, which was training in Texas. He went overseas in the spring of 1918, and returned to the United States in 1919. He attained the rank of lieutenant colonel. He attended the first school of aviation medicine at Garden City, Long Island, and was a contributor to one of the first accepted standard texts on aviation medicine. After the war, Dr. Beverly returned to Austin and resumed private practice. During his professional career in Austin he had served as physician to the State School for the Deaf, and as local surgeon for the Missouri-Pacific and M. K. & T. Railroads. Dr. Beverly's specialty was obstetrics, and he was considered one of the outstanding leaders in this specialty in the state. Dr. Beverly was a member throughout his professional life of the Travis County Medical Society, State Medical Association, and American Medical Association. He was a charter member of the Travis County Medical Society which he helped to organize and which he served as a member of the board of directors for many years. He was a Fellow of the American Medical Asso-

DR. A. F. BEVERLY

ciation and American College of Surgeons. He was also a member of the Texas Society of Obstetricians and Gynecologists. He was a member of the staffs of Seton Hospital, St. David's Hospital and Brackenridge Hospital, Austin. Dr. Beverly served the State Medical Association as chairman of the Section on Obstetrics and Gynecology in 1928. He also served the Association as Councilor of the Seventh District for a number of years. He rendered signal service to the State Medical Association in legislative affairs because of his influence at Austin. His sound judgment in medical affairs could always be depended upon. He was widely and favorably known by the medical profession of Texas. He was a member of the Kappa Sigma fraternity, and the American Legion. He was a member of the University Methodist Church.

Dr. Beverly was married in 1913 to Miss Bessie Eilers of Austin. His wife preceded him in death in 1941. He is survived by one daughter, Mrs. Margaret B. Soriero of New York City, and two grandchildren, Thomas Fitzhugh Soriero and Margaret Beverly Soriero.

Dr. J. A. Broussard of Port Arthur, Texas, died March 19, 1944, at his home, of carcinoma of the prostate.

Dr. Broussard was born May 12, 1884 in Lafayette, Louisiana, the son of Mr. and Mrs. A. C. Broussard. His academic education was received in the public schools of Lafayette and the Southwestern Louisiana Industrial Institute at Lafayette. His medical education was obtained in the College of Physicians and Surgeons, at Memphis, Tennessee, from which he was graduated in 1911. He began the practice of medicine at Basile, Louisiana, where he remained seven years. He then removed to Port Arthur, Texas, where he was in practice for twenty-five years until his final illness. Dr. Broussard was a member for many years of the Jefferson County Medical Society, State Medical Association, and American Medical Association. He was highly regarded by his medical associates, and the clientele he served. He was a former member of the Lions' Club, and a member of St. James Catholic Church, Port Arthur.

DR. J. A. BROUSSARD

Dr. Broussard was married May 23, 1930, to Miss Hazel Irene Hammock at Lake Charles, Louisiana. He is survived by his wife, and two sons, Joseph A. Broussard, Jr., and Ernest E. Broussard, both of Port Arthur; three sisters, Mrs. D. Bonnemaison, Dallas, Mrs. Laurence Massicot and Mrs. E. A. Orgeron, both of Lafayette, Louisiana; and three brothers, O. J. Broussard, Los Angeles, California, Edward Broussard, Lafayette, Louisiana, and L. A. Broussard, Port Arthur.

Lt. Jack Kinell, M. C., U.S.N.R., of Houston, Texas, before entering the Armed Services, died suddenly after reporting for duty at the Corpus Christi Naval Base, April 18, 1944. Lieutenant Kinell had been on an extended leave in Houston, after having become ill in the South Pacific area, where he had served for twenty months.

DR. JACK KINELL

Dr. Kinell was born June 5, 1912, in Kansas City, Missouri, the son of Francis Grant and Edna Mae Kinell. His academic education was received in the Kansas City Junior College and the University of Kansas, from which latter institution he was graduated with the B. S. degree in 1934. His medical education was obtained in the University of Kansas School of Medicine from which he was graduated in 1936. He then served an internship in the Cleveland City Hospital, following which he took a Fellowship in internal medicine in the Cleveland Clinic from 1937 to 1940. He began the practice of medicine in Corpus Christi, Texas, where he lived from February, 1941, to June, 1941. He then moved to Houston, where he was in practice until 1942, at which time he entered the medical corps of the Navy in which he had served approximately two years. Lieutenant Kinell had done outstanding work in the treatment of yaws in the South Pacific area. The illness which he contracted during this period no doubt contributed to his death.

Dr. Kinell was a member of the State Medical Association, and American Medical Association during his years of practice in Texas, through the Nueces County Medical Society while residing in Corpus Christi, and the Harris County Medical Society after his removal to Houston. He was also a member of the South Texas District Medical Society.

He is survived by his wife, the former Miss Nancy Chancellor, to whom he was married in 1938. He is also survived by a daughter, Judy Kinell; a son, Bill Kinell; his parents, Mr. and Mrs. F. G. Kinell, all of Houston; two sisters, Miss Jerrine Kinell, and Mrs. F. W. Rufi, Dallas.

Dr. Samuel A. Watts of Marlin, Texas, died April 21, 1944, following a brief illness.

Dr. Watts was born June 13, 1874, in Dallas, Mississippi, the son of Powell and Frances (Grimes) Watts. He came to Moffat, Bell County, Texas, with his parents in 1888, where he was reared, and received his early education. He began the practice of medicine by the preceptor method under Dr. M. M. Curtis of Moffat. He then attended the medical department of Grant University Chattanooga, Tennessee, from which he was graduated in 1902. He had later taken postgraduate work at Tulane University, New Orleans. He began the practice of

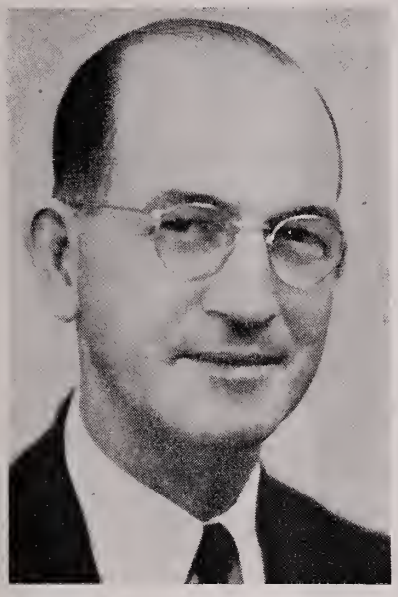
medicine at Moffat in 1900. In 1909, he moved to Pendleton, Texas, where he lived and practiced until 1926. At that time he moved to Marlin and joined the staff of the Torbett Clinic and Hospital, continuing in this association until his death.

Dr. Watts was a member continuously throughout his professional life of the State Medical Association and the American Medical Association through the Bell County Medical Society while living in Moffat and Pendleton, and the Falls County Medical Society after his location in Marlin. He was also a member of the Twelfth District Medical Society. He was a member of the Baptist Church, which he had served as a deacon and member of the choir. For many years he was active in Masonry. Dr. Watts took an active part in the civic affairs of his community. He was highly regarded by all who knew him as a physician and for his gentlemanly, courteous consideration of all with whom he came in contact.

Dr. Watts is survived by his wife, the former Miss Lillian Caldwell, to whom he was married in 1905. He is also survived by a daughter, Mrs. George F. Walters, Carlisle Barracks, Carlisle, Pennsylvania; a brother, Arch Watts, Moffat; and a sister, Mrs. John Baggett, Wister, Oklahoma.

Dr. A. L. Popplewell of Anton, Texas, died suddenly March 22, 1944, of heart disease. Dr. Popplewell had just arrived at the Littlefield Hospital to visit a patient when the fatal attack occurred.

Dr. Popplewell was born February 10, 1888, at Birdville, Texas, the son of James Murphy and Texana (Leonard) Popplewell. His academic education was received in the Oak Cliff High School, Dallas, and Baylor University, Waco. His Medical education was received in Baylor University College of Medicine, Dallas, from which he was graduated in 1912. He began the practice of medicine at Fayetteville, Texas, where he lived two years. He then lived and practiced for five years at Coleman, and at Vickery, Bridgeport and Fort Worth, prior to his location in Anton in 1937, which was his home for the remainder of his professional life.



DR. A. L. POPPLEWELL

Dr. Popplewell was a member for many years of the State Medical Association, and American Medical Association through the county medical societies of his various places of residence. He served the Lamb-Bailey-Hockley-Cochran Counties Medical Society as president in the year 1939-1940. He was a highly respected practitioner, who gave of his best in the practice of his profession.

Dr. Popplewell is survived by his wife, to whom he was married in 1943. He is also survived by a stepson, Eugene, by his first wife, who died in August, 1942; four sisters, Mrs. A. B. Autrey and Miss Mary Joe Popplewell, Beaumont; Mrs. Elizabeth Whyte and Mrs. C. Costrove, Fort Worth; and three brothers, J. M. Popplewell, Dallas, T. E. Popplewell, Fort Worth, and Allen F. Popplewell, Port Isabel.

Dr. W. E. Nesbit of San Antonio, Texas, died April 5, 1944, of encephalitis.

Dr. Nesbit was born August 28, 1888, in Batesville, Arkansas, the son of Thomas and Mary (Carter) Nesbit. His academic education was received in the University of Arkansas, from which he was graduated with an A. B. degree. His medical education was obtained in Johns Hopkins University, Baltimore, from which he was graduated in 1913. He then served an internship in the Dr. Trout's Medical and Surgical Hospital, Roanoke, Virginia, followed by a residency in the County Hospital, Baltimore, Maryland. In 1915, he located in San Antonio for the practice of medicine, which was his home for the remainder of his professional life.

DR. W. E. NESBIT

During World War I, Dr. Nesbit entered the medical corps of the regular Army and was graduated from the Army Medical School in 1918. He served overseas with the 90th Division as a first lieutenant in the medical corps and was severely wounded in the St. Mihiel Drive on September 18, 1918. He resigned his commission in the Army in 1920 to resume civilian practice. He limited his work to internal medicine and was widely known in medical circles as an accomplished internist. He was held in the highest esteem by his medical associates for his professional ability.

Dr. Nesbit was a member continuously in good standing of the Bexar County Medical Society, State Medical Association, and American Medical Association from 1916 until his death. He was a Fellow of the American Medical Association, and a charter member of the Texas Club of Internists, being one of the organizers of that group. He was a diplomate of the American Board of Internal Medicine, and a Fellow of the American College of Physicians. Dr. Nesbit served the State Medical Association as chairman of the Section on Medicine and Children's Diseases in 1927. During the present war, he had served as chairman of the Procurement and Assignment Advisory Committee for Bexar County until his death, and had rendered signal services in this capacity. He had served as Chairman of the Selective Service System at San Antonio for two years, and as civilian examiner at Induction Center, Camp Dodd, since its inception. He was a member of the Kappa Sigma academic and Phi Chi medical fraternities. He was a member of the Episcopal Church,

which he had served as vestryman. The following excerpt from resolutions adopted by Bexar County Medical Society on the occasion of his death, revealed the esteem in which he was held by assocaites: "Dr. Nesbit was one of the bravest and, therefore, one of the kindest and gentlest of men. Medicine, to him, was never a business and it was always more than a science. He cared for neither wealth nor fame, but loved his work because it furnished him with an opportunity to comfort and to help all those who suffered pain . . ."

Dr. Nesbit was married October 20, 1917, to Miss Fairfax Janin of San Antonio, who survives him. He is also survived by a daughter, Miss Fairfax Janin Nesbit, one sister, Mrs. Zoie Nesbit Strother, and two nephews in the Armed Services.

Dr. Ben L. McCloud, Sr. of Graford, Texas, died March 23, 1944, in a Dallas hospital, of brain tumor.

Dr. McCloud was born March 21, 1877, in Fort Payne, Alabama, the son of James M. and Ruthie E. McCloud. He came to Texas with his family at the age of four years. His academic education was received in the public schools and the Weatherford College, Weatherford, Texas. His medical education was obtained in the old Fort Worth Medical College, and Southwestern Medical College, Dallas, from which latter institution he was graduated in 1907. He began the practice of medicine at Bryson, Jack County, Texas, in 1908, where he remained for thirteen years. He then moved to Santo, Palo Pinto County, where he practiced until 1928. At that time, he moved to Graford, which was his home for the remainder of his life.

DR. BEN L. McCLOUD

Dr. McCloud was a member for many years of the State Medical Association and the American Medical Association through the Jack County Medical Society while residing at Bryson, and the Palo Pinto-Parker Counties Medical Society after his removal to Graford. He served the latter society as president in 1942. He was highly esteemed in his community, both as a physician and a citizen. He took an active interest in every worth-while civic enterprise, and gave generously of his time and talents for the betterment of the community. He will be sorely missed. He was a member of the Methodist Church, which institution he had served in every capacity open to a layman. For many years, he was an active member of the Masonic order.

Dr. McCloud was married October 29, 1911, to Miss Mary Ellen Jones of Bryson, Texas. He is survived by his wife; two sons, Major Ben. L. McCloud, Jr., M. C., U. S. Army, now stationed in England, and James Bryant McCloud, Graford; one daughter, Mrs. Bascom Story, Miami Beach, Florida; two brothers, J. O. McCloud, Bryson, and R. J. McCloud, Graham; and four sisters, Mrs. A. P. Lipscomb and Mrs. Sallie C. Milburn, Bryson, and Mrs. R. E. Graves and Mrs. Ida Caldwell, Graham, and three grandchildren.

Dr. Hal H. Puckett of Alice, Texas, died April 15, 1944, of coronary occlusion.

Dr. Puckett was born December 3, 1884, on a farm near Celeste, Texas, the son of Alexander L. and Emma (Henslee) Puckett. His academic education was received in the Elmwood Institute and the University of Texas. His medical education was obtained in the University of Texas School of Medicine, Galveston, from which he was graduated April 30, 1910. He began the practice of medicine in Hickory Creek, Hunt County, Texas, not far from his birthplace, where he remained nine years. He then lived and practiced for nine years in Wolfe City. At that time he accepted a commission in the U. S. Public Health Service and was made director of the Fayette County Health Unit in Fayetteville, West Virginia, which position he held until December, 1936. He then returned to Texas, and had served continuously under the State Health Department from September, 1937, until his death, having been director of District No. 6 Health Unit and director of health units of Floyd, Tom Green, Bowie, and Jim Wells Counties, successively.

DR. HAL H. PUCKETT

Dr. Puckett was for many years a member of the State Medical Association and American Medical Association through the county medical societies of his various places of residence in Texas. While residing in West Virginia, he was a member of the Fayette County Medical Society and the West Virginia Public Health Association, which he had served as president for one year. During his residence in Texas, he was a member of the Texas Public Health Association. Dr. Puckett took an active interest in the civic affairs of the communities in which he lived. While residing at Alice he was a member of the Lions Club. He had served the community as chairman of many committees concerned with public health. He was held in high esteem by all who knew him, both as a competent public health official and as a citizen who readily assumed his part in civic responsibilities. His friendly personality and character had endeared him to all with whom he came in contact.

Dr. Puckett was married June 16, 1922, to Miss Claire Medlin at Waxahachie, Texas. He is survived by his wife; two sons, Hal King Puckett, now serving in the U. S. Navy, and Billie Puckett, Alice; a sister, Mrs. L. B. Norman, Durant, Oklahoma; and two brothers, H. D. Puckett, Greenville, and J. L. Puckett, Celeste.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsay Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

The Twenty-sixth Annual Session of the State Executive Board and Delegates of the Woman's Auxiliary to the State Medical Association of Texas convened in Dallas, May 10 and 11, 1944. Meetings were held at the Dallas Woman's Club on May 10, and at the Baker Hotel, May 11. The final registration count was 120.

The registration booth opened at 9:30 a. m. Wednesday, May 10, on the mezzanine floor of the Baker Hotel.

After registration, visiting board members, delegates and Dallas County Auxiliary members were taken to the home of Mrs. S. F. Harrington, Past State President, for a brunch. This gracious courtesy was in honor of Mrs. A. B. Pumphrey, Fort Worth, State President.

As each board member left for the business session at the Dallas Woman's Club she was presented with a corsage, gift of the president.

The first business session opened with an invocation by Mrs. R. B. Homan, El Paso, and the Pledge to the Flag was led by Mrs. T. B. Bass, Abilene. Greetings were heard from Mrs. Guy F. Witt, President of Dallas County, Mrs. R. C. Cross, Mrs. F. N. Haggard and Mrs. S. F. Harrington. Business consisted of reports from the county presidents and council women and an open forum on county auxiliaries was conducted by Mrs. R. H. Crockett, San Antonio. The Memorial Service, led by Mrs. S. H. Watson, brought the day's session to a close.

Brief meetings of various standing committees followed.

A "no host" dinner at the Dallas Woman's Club was a most enjoyable conclusion to the day's activities. The Council Women had a separate table to facilitate a round table discussion. The Past Presidents were honored at a dinner in an adjoining room, with Mesdames E. H. Cary, S. F. Harrington and O. M. Marchman as hostesses. All ladies assembled in the main lounge to enjoy a program of music and talks planned by the Dallas Auxiliary. Each participant was connected with the medical profession. The musical program was given by Miss Jean Turner, El Paso, pianist, and Mrs. Penn Riddle, violinist, Dallas. Mrs. John Goode, Dallas, read a humorous play on socialized medicine.

The business session reconvened at the Baker Hotel Thursday, May 11, at 9:30 a. m. Reports of officers and committee chairmen were heard. A recommendation concerning honorary membership and one in regard to a registration fee as presented by the Revisions Committee were passed, after the latter was amended. New officers were elected and installed.

After adjournment a "no host" luncheon in the Mural Room was attended and enjoyed by all members of the State Auxiliary in attendance on the session.

A brief Post Executive Board meeting under the leadership of Mrs. S. E. Thompson, the new President, concluded the activities.

The Auxiliary wishes to express sincere gratitude to the hostess auxiliary, hotels and press for making such a meeting both pleasant and profitable during a period of uncertainty, particularly at a time when service and courtesy are so difficult. Notwithstanding the handicaps, the meeting was one of the most successful, interesting and pleasant that the State Auxiliary has had.—MRS. MARK H. LATIMER, Recording Secretary.

Mrs. Sam E. Thompson, twenty-seventh President of the Woman's Auxiliary to The State Medical Association, was born in El Dorado, Arkansas, daughter of the late Dr. and Mrs. Tom M. Pinson.

MRS. S. E. THOMPSON

When Annie Lee Pinson was graduated from high school she refused to go to college, and was married. At the age of 19 years, when most girls are thinking of a degree, she was the mother of two sons. In 1914, she was married the second time, and "Dr. Sam" was the fortunate man. His health became impaired from his strenuous duties, so they moved to Texas, locating first at San Angelo. They later moved to Carlsbad, Texas, where Dr. Thompson was connected with the State Tuberculosis Sanatorium from 1912 to 1916. In 1917 they came to Kerrville.

If Annie Lee Thompson had been born a boy, she would have been a construction engineer, for she is never happier than when building roads, and the winding drive over and around the Kerrville hills to the Thompson home, "Steepside," is evidence of her ability as a supervisor. When friends are wont to telephone, they never are sure whether she is over in the back pasture, building a bridge, supervising the mending of a fence, feeding some orphan deer, or on the back porch of her lovely home, churning the rich milk from the Thompson jerseys, making pounds of golden butter, which she distributes as prizes at bridge parties and on other occasions to her friends.

With Annie Lee Thompson's love for out-door work goes her love for out-door sports. She hunts and fishes with the men. Dressed in overalls she wades and fishes in the surf and accepts no coddling. She was the first woman to go to, and fish in, the Eighth Pass in Old Mexico, 100 miles south of Matamoros. She shoots a rifle and takes care of her own game. For many years she managed a hunting camp, kept for their friends.

When Dr. Thompson came to Kerrville and established his private sanatorium, he had no worries connected with the running of the establishment, such as the purchasing of foods and supplies, the arrangement of attractive food trays, the overseeing of the many negro servants, replenishing of the linens, looking after the relatives who came to visit the patients, and the hundreds of other details required in the successful management of such a place. He did not have to worry because Annie Lee was at

the helm of the Thompson ship. Upon one occasion a distinguished visitor came to the Sanatorium and asked for her. The nurse in the office directed the visitor to the dining room where Annie Lee came out of the ice box, covered with water and grease. She had been the repair man for the broken ice box, and had done a good job.

After "Steepside" was built, "Dr. Sam" and Annie Lee took a well deserved rest and went to Europe. Her trunks were fairly bulging upon her return with priceless treasures for her own home, and for her friends. Her hobby is antiques, and she probably has one of the choicest authentic collections in Texas. Many rare items have come from New Orleans, in the old French Quarter, which she haunts when in that city; from Mexico City, and from the Eastern coast lines. Her collection of rare Dresden china has been given by her friends, one piece at a time, on special gift occasions.

The atmosphere of the Old South prevails at "Steepside" and on Christmas time the servants and all of the intimate friends gather around the huge tree in the living room, and even the youngest darkey gets his personal "Crismus Gift" from "Dr. Sam" and "Old Miss." Not only is there a tree, but prior to the time the gifts are handed out a Christmas dinner is served, which consists of many home products such as fresh corn, and fresh peaches, which are added to the ice cream—these two products being in the deep freeze for a number of months awaiting this annual event. The menu is lacking in no way.

So hospitable is this home that friends drop in without invitation to a meal of the famous "cawn pone", home cured meats, vegetables from the garden, strawberries and cream or fresh peach ice cream. "I heard you were having a party, so I came" is the frequent greeting of friends, to whom the latch string is always out.

Mrs. Thompson is a charter member of the Auxiliary to the Kerr-Kendall-Gillespie-Bandera Counties Medical Society, and has served as its president on four occasions. She is active in the work of all civic organizations in her community and a most generous contributor. She is a member of the Episcopal Church, of the Kerrville Garden Club, and the Civic League. She has worked with the Associated Charities and all welfare agencies, giving generously of her time and means.

Members of the Medical Society and the Auxiliary of South Texas counties are all familiar with the Thompson "Chuck Wagon" which overlooks the panorama of the scenic Guadalupe River, which winds at the foot of "Steepside", and of the luscious chicken barbecues which have been served on this top of the world spot.

Under her leadership during this strenuous war year, Auxiliary members may expect her to dwell a great deal upon the home as the unit of family life which should and must be kept intact; on the welfare of the doctors who are called upon to serve far beyond their physical strength in many instances, and for the ardent endeavor to bring an end to the conflict, so that peace and sanity will return to all nations.

Tuberculosis, syphilis, cancer, heart disease, and other killers of mankind show no signs whatsoever of adopting a forty-hour week; instead, there is every reason to believe that unless society continues to press its fight against them with undiminished vigor we may shortly see an upsurge in their incidence as we did during and following World War I.—E. E. Kleinschmidt, M. D., Ohio St. Med. Jour., March, 1944.

TRANSACTIONS
OF THE
TWENTY-SIXTH ANNUAL SESSION
OF THE
EXECUTIVE BOARD AND DELEGATES
WOMAN'S AUXILIARY
TO THE
STATE MEDICAL ASSOCIATION
OF TEXAS
DALLAS, MAY 10 AND 11, 1944

The twenty-sixth annual session of the Executive Board and Delegates of the Woman's Auxiliary to the State Medical Association of Texas convened at 2:00 p. m. Wednesday, May 10, 1944, at the Dallas Woman's Club with the president, Mrs. A. B. Pumphrey, Fort Worth, presiding.

The invocation was given by Mrs. R. B. Homan, El Paso, as follows:

Invocation

Eternal God, our Father, we invoke Thy blessings upon this meeting. Grant that the things we do here shall be for the welfare of Thy children. Give us the understanding and the sympathy that was characteristic of Thy Son. Let the spirit of Him, whom we call the Great Physician, guide our thoughts and direct our work. Let love that expresses itself in outgoing service motivate our meeting. Give us a high conception of the ministry of healing and help us, as wives of physicians, to maintain the high ideals set by them.

Bless with Thy power all physicians in service for our country and those who are serving by beds of pain at home; endow them with physical strength as well, to bear the burdens of these trying hours and may we be efficient, faithful helpmates in this time of need.

In Jesus name we pray. Amen.

Mrs. W. Frank Armstrong, Fort Worth, read the Scripture, Psalm 8.

The Pledge to the Flag, led by Mrs. T. B. Bass, Abilene, lent a patriotic atmosphere to the meeting.

At this time the ten past State Presidents attending the session were introduced.

The address of welcome was given by Mrs. Guy F. Witt, President of the Dallas County Auxiliary, as follows:

Address of Welcome

Members of the Executive Board of the Woman's Auxiliary to the Texas Medical Association, and Guests, the Auxiliary to the Dallas County Medical Society is happy to have the privilege of entertaining you, on this our twenty-sixth Annual meeting.

We are delighted to welcome you to our city. Although present critical conditions have necessitated many changes in our schedule, we know that you will gain the usual stimulation for the serious work of the coming year.

We hope you will find a happy blending of relaxation, a much needed diversion from self-sacrificing work, and a lasting inspiration while you are with us. We hope, too, that you will carry away with you pleasant memories of your visit to Dallas.

To all of you we extend a most cordial welcome.

Mrs. Ralph Cross, Texarkana, gave the response to the address of welcome as follows:

Response to Address of Welcome

Mrs. Pumphrey, our capable and charming President, has asked me to try to tell you how delighted the members of the Woman's Auxiliary are to accept your gracious invitation to meet with you at this time.

Never since we were organized have we known so many countries to be at war; never have we known people to be so "health conscious." They are looking to our doctors to safeguard the health of the people at home, as well as the boys in the armed forces.

It is our duty to interpret Defense Health Education in all the lay organizations to which we belong, with an understanding required of few. To do this, we must study.

We all know our first line of defense in these United States today is the home, and what we get from each other here will help us in our efforts in the greatest field of all Christian service, "Home Making."

We thank you for your most cordial welcome.

Greetings from Mrs. Frank Haggard, San Antonio, the immediate Past President of the Woman's Auxiliary to the American Medical Association, were read by Mrs. G. V. Brindley, Temple.

Greetings From Mrs. F. N. Haggard

My greetings to you as an immediate past president of the National Auxiliary would be, first, to congratulate our valiant women for their united effort, because it has enabled us to reach our objectives even in these chaotic times. It means being flexible instead of frightened, open-minded instead of rigid and fixed on the past.

In such serious days as now exist, the Auxiliary becomes expansively important as we, as individuals, make it. Our responsibilties are threefold: first, to maintain our own health; second, to help maintain the health of the community in which we live; and third, to bolster the morale of every individual who happens to come within the scope of our influence.

As private citizens we can try at least to look beyond the present abnormalities of life and also past the confusion of the postwar period. Through our public relations, both local and national, we can be a vital factor in moulding psychological and legislative trends in keeping our institutions American.

The Auxiliary member doing her full share, deserves the thanks and appreciation of all whose hopes and prayers are for a better, freer world.

Mrs. S. F. Harrington, Dallas, Councilor for the Woman's Auxiliary to the Southern Medical Association, brought greetings from that organization.

Greetings From the Southern Auxiliary

It is a very great pleasure to bring you two greetings from the Auxiliary of the Southern Medical Association. One is in the form of a report of the meeting in Cincinnati, and the other in the form of an invitation—a very cordial invitation to enjoy the gracious hospitality of the Southern Auxiliary in St. Louis from November 13 to 16 of this year.

Texas feels a special pride in the Southern Auxiliary, for four of its eighteen president have been Texans. The first president was Mrs. E. H. Cary. The third president was Mrs. O. M. Marchman, also of Dallas. The seventh president was Mrs. S. A. Collom of Texarkana, and then Mrs. Frank Haggard of San Antonio, National President last year. We are indeed sorry that she is unable to be with us today.

And I felt a very special pride, I assure you, in giving the report of the work which you helped carry out in Texas last year. It really was a thrilling report. The report stressed, as you know, the program of the Southern Auxiliary, which includes four phases of work: the celebration of Doctor's Day; Research and Romance of Medicine; The Jane Todd Crawford Fund; and War Work. When I told them what Texas had done in War Work last year, the applause would have thrilled you, and I am sure the work you are doing this year will merit even more appreciation. For each of us must now realize that she has a challenge to meet—a worthy accounting of her entire war contribution to what must be victory. I have confidence that when I give the report next year, we will have met the challenge through work and prayer.

Announcements were called for at this time concerning the meeting of certain standing committees and the social activities of the meeting.

Upon motion of Mrs. H. R. Dudgeon, Waco, it was voted to dispense with the reading of the minutes of the last Executive Board meeting since they had been printed in the Journal after approval by a committee.

Appointments made by Mrs. Pumphrey were:

Parliamentarian, Mrs. J. T. Moore, Houston.

Committee to approve minutes, Mrs. S. H. Watson, Waxahachie; Mrs. R. C. Bellamy, Daisetta; Mrs. E. L. Howard, Fort Worth.

Committee to judge reports, Mrs. George Turner, El Paso; Mrs. T. H. Thomason, Fort Worth; Mrs. Hall Shannon, Dallas.

Upon motion of Mrs. R. T. Wilson, Austin, it was voted to accept the reports as a whole at the close of the meeting.

County reports were heard at this time. In several instances President Mrs. Pumphrey gave interesting comments on counties which did not have representation at the meeting.

Following the county reports a communication from Dr. Holman Taylor was read, expressing appreciation for the work done by the county auxiliaries throughout the state.

After a brief intermission the Council Women were introduced and gave their reports as follows:

Report of District One Council Woman

The First District is composed of eleven counties in West Texas. There are three organized medical societies, with two medical auxiliaries, the El Paso Auxiliary and the Auxiliary to the Big Bend Medical Society. The Big Bend Auxiliary consists of the following counties: Brewster, Jeff Davis, Pecos, Presidio and Terrell. Their meetings are held when the medical society meets.

The unorganized counties consist of Reeves, Ward, Winkler, Loving and Hudspeth Counties. There are only seven doctors in these counties who are affiliated with their medical society. The wives of these doctors have been contacted and asked to organize an Auxiliary or to become members-at-large of the El Paso Auxiliary. At this time there is no report to make concerning such organization.

Mrs. L. M. Smith, El Paso.

Report of District Two Council Woman

Since the Six County Auxiliary is the only organized group in District 2, the reports are the same except for the inclusion of two members-at-large. Enrollment is 14 active, 2 members-at-large.

I did contact someone in each division of the district and have been told that since so many doctors are in the service the organization of an auxiliary must of necessity be postponed for the duration.

Too, our auxiliary has found it difficult to meet because of gasoline rationing. So this year we are planning to get together the same time the medical society meets.

While we are not as active as usual, we are inter-

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ested and hope to do a small part toward carrying out the aims of the State Auxiliary.

MRS. J. H. BARGANIER, Odessa.

REPORT OF DISTRICT THREE COUNCIL WOMAN

There are four organized auxiliaries in District 3: Gray-Wheeler; Potter; Lubbock-Crosby and Childress-Collingsworth-Hall.

The Third District Medical Society has discontinued all meetings this year, so there has been no social activity in the District.

All auxiliaries in this district have held their regular meetings, usually doing Red Cross work. At the last meeting of the Potter County Auxiliary, Col. H. H. Latson spoke to a large group about his experiences in Guadalcanal.

Members of all the auxiliaries have been busy in various departments of the Red Cross work. The Childress-Collingsworth-Hall Counties Auxiliary won the highest National prize in the distribution of *Hygeia*.

MRS. W. R. KLINGENSMITH, Amarillo.

REPORT OF THE FIFTH DISTRICT COUNCIL WOMAN

A letter was written to each of sixty-four doctors' wives in counties throughout District 5, in which there were no auxiliaries. This letter extended a cordial invitation to become associate members by sending in one dollar.

It was explained that more than money, the state organization needs "*your influence and services.*"

Thirty women responded. The money and names were sent to the State Treasurer, and a card of thanks mailed to each woman who responded.

It is the hope of the council woman to have membership cards to send to such associate members.

MRS. S. E. THOMPSON, Kerrville.

REPORT OF DISTRICT SIX COUNCIL WOMAN

Letters were written to 133 non-members.

Five letters and recommendations for organization were addressed to unorganized counties.

A card of thanks was mailed for membership dues received.

Money for new members was forwarded to Mrs. W. A. Minsch, State Treasurer.

Letters were sent to Cameron-Willacy County, urging them to send in annual reports to Mrs. M. H. Latimer at Houston.

Many letters were answered in regard to Sixth District routine business.

MRS. L. P. GUTTMAN, Corpus Christi.

REPORT OF DISTRICT SEVEN COUNCIL WOMAN

I regret to make this report, but it is the best that I can do. I have sent cards and even called by telephone the different county presidents in our district on certain occasions, inviting them to meet with Travis County Auxiliary.

Only two of the doctors' wives from out of Austin have been with us any time this year. Some are helping their husbands and doing other things to help in service. However, they will not report hours spent in service, so the report is that of Travis County.

There has been a net gain of eight members. Legislative work consisted of writing letters to congressmen and distributing literature received from the central office in Fort Worth. The essay contest was sponsored, and *Hygeia* subscriptions were sold.

Letters and cards have been sent to each Auxiliary in the district.

MRS. R. T. WILSON, Austin.

REPORT OF DISTRICT EIGHT COUNCIL WOMAN

This year the duties of the council woman have necessarily been carried on through correspondence. I have kept in touch with our two auxiliaries: Wharton-Jackson-Fort Bend-Matagorda, and DeWitt-Lavaca.

The Eighth District comprises eleven counties in which there are six medical societies, leaving an unorganized field of auxiliary opportunity for post-war council women.

Our semi-annual district meetings have taken place as usual with Districts Nine and Ten. Our joint organization is known as the South Texas District Auxiliary.

Hospitality of the Harris County Auxiliary has made it possible for fall and spring sessions to convene in Houston, and Mrs. Burch of Lufkin, presiding officer of the three districts, has been able to carry out an interrupted year's work.

As council woman I have written letters urging our county presidents to have their regular meetings if possible. Wharton-Jackson-Fort Bend-Matagorda reported twelve meetings and twenty-one members. The president of DeWitt-Lavaca, not being able to have regular meetings, carried out the program through correspondence, with one meeting in my home for the election of officers.

The president reported twenty-five active members and one associate member, bringing the total active membership in the district to forty-six, a loss of only two members this year.

Both auxiliaries report creditable Red Cross activity, with doctor's wives in places of leadership. I have written letters and made telephone calls in the interest of district work and cooperated with the State Chairman of organization, and with the president of our South Texas District Auxiliary.

Never in history have we had such busy hands and anxious hearts. Some of us have not been able to attend state meetings; but in spite of servantless homes, pressing obligations of war work, and the bitter knowledge of the jeopardy of our loved ones in battle fronts, we have kept "thumbs up" and pushed toward a goal of following our splendid leadership.

MRS. MARVIN DUCKWORTH, Cuero.

REPORT OF DISTRICT NINE COUNCIL WOMAN

District Nine is composed of ten counties. The six organized counties are Austin-Waller, Galveston, Harris, Montgomery, Walker-Madison-Trinity, and Washington. The four unorganized counties are Brazoria, Burleson, Grimes and Polk-San Jacinto. Letters were written to wives of thirty-one doctors in unorganized counties and fifteen new associate members were the result of these letters.

As Council Woman, I attended the Winter and Spring meetings of the South Texas District, which were held in Houston. It was our special privilege to have in attendance at the last meeting our State President, Mrs. A. B. Pumphrey, and our former State President, Mrs. P. R. Denman. It has been a pleasure to serve as Council Woman from District 9, and I pledge my support to our new officers and to my successor.

MRS. FRANK J. IIAMS, Houston.

REPORT OF DISTRICT TEN COUNCIL WOMAN

The South Texas District Auxiliary, composed of Districts Eight, Nine, and Ten has twelve active counties; Jasper-Newton, our thirteenth county, is inactive for the duration. The members are widely scattered and find meeting together especially hard, and a few of the wives have gone with their husbands who are in service. We have a reported membership of 482 active members, 50 associate, and 3 members-at-large.

One hundred and nine subscriptions to *Hygeia* were secured.

Sixteen subscriptions to the *Bulletin* were reported.

The sum of $24.50 was contributed to the Student Loan Fund; the sum of $7.00 was donated to the

George Plunkett Red Fund, and $12.00 to the Memorial Fund.

Many Auxiliaries reported contributions to outside activities, which included $15.00 to Tuberculosis Control, $12.00 to Campfire Girls, $14.00 to Soldiers' Center and $10.00 to the Red Cross Fund.

Almost 100 per cent of our members are doing Red Cross and war work, which consists of time spent in hospitals, doctors' offices, Red Cross sewing rooms, knitting rooms, surgical dressing rooms, making kits, working on Red Cross drives—approximately 70,000 hours.

Over 300 physical examinations were reported from doctors' families.

One thousand, six hundred and eighteen (1,618) letters to congressmen were written concerning the Wagner-Murray-Dingell bill.

Mrs. J. S. Burch, Lufkin.

Report of Eleventh District Council Woman

The Eleventh District includes seven counties, with four medical societies and four auxiliaries. Anderson-Houston-Leon; Cherokee; Henderson, and Smith, with a membership of seventy-seven, forty-five of whom are active members.

Owing to the gasoline rationing and congested conditions of bus and trains, I have not visited three of these auxiliaries personally, but have contacted and transacted all business by telephone.

We had an interesting and enthusiastic district meeting in Tyler, October 18, 1943, with Mrs. W. F. Armstrong and Mrs. X. R. Hyde, of Fort Worth, as guests. Mrs. Armstrong brought a forceful message on socialized medicine and urged all present to contact their congressmen, urging them to vote against the Wagner-Murray-Dingell bill. She also urged the members of county auxiliaries to stress the evils of socialized medicine in their communities.

The next district meeting will be held in Palestine, April 27, 1944, when officers for the coming year will be elected.

District Eleven members have spent 5,587 hours in making surgical bandages and dressings for the Red Cross; 56 hours in knitting; 154 hours in sewing, and 158 dozen cookies were sent to Harmon Hospital at Longview, and different service organizations, where members spent 1,100 hours serving as hostesses, etc.

Thirty-eight doctors, 31 wives and 108 children in doctors' families had health examinations. There are 45 members reading the notes in the State Journal.

In continuing to function for the duration, we feel that much can be accomplished.

Mrs. W. H. Sory, Jacksonville.

Report of the Twelfth District Council Woman

The Twelfth District Auxiliary has held two meetings during the past year, in Marlin in July 1943, and in Waco in January 1944. Both of these were well attended, in spite of transportation curtailments.

At both gatherings, emphasis was placed on denouncing the Murray-Wagner-Dingell Bill. At the January meeting all individual organizations reported the work done in this line, which was far reaching and showed great effort on the part of the women.

At each meeting a free will offering was collected and turned over to the State Memorial Fund.

For the past five weeks there have been grave illnesses in the family of our District president. Both she and her father have had serious operations, but are now on the mend. For this reason the report of this district has been delayed.

Mrs. A. E. Moon, Temple.

Report of District Thirteen Council Woman

A meeting was held in Breckenridge, October 19, 1943, at which twenty-four Auxiliary members joined the District Medical Society for lunch. Then each organization held its separate meeting.

About eighty-five members and friends met after the luncheon to hear Dr. J. D. Hall, Wichita Falls, president of the District Medical Society, give an instructive talk on the Wagner-Murray-Dingell bill.

Mrs. Joseph M. Perkins of Eastland, gave an interesting review of the book, "A Tree Grows in Brooklyn", by Betty Smith.

Mrs. E. Roy Townsend presented a four-point legislative program.

Eight joined the Auxiliary as members-at-large. The dues of twenty-two members have been sent to Mrs. W. A. Minsch, State Treasurer.

The Auxiliary plans a meeting in April.

The members are encouraging physical examinations in their families and communities. A number of talks have been made on health topics and on socialized medicine.

Wartime service is varied, and all are taking part in some phase of the work. A great many are busy in Red Cross production centers; some are teaching first aid and home nursing, some are serving as Gray Ladies, others are giving time to the Blood Plasma Unit; still others help recruit young women for the U. S. Nurses Corps, and many are promoting the sale of bonds and stamps.

Many husbands are in the service. Contributions of service are many and of great value to our district and country. The thought and prayer in every woman's heart is to bring our boys home soon—not just alive but sound in body and mind.

Mrs. E. Roy Townsend, Eastland.

Report of District Fourteen Council Woman

Lamar County Auxiliary has 19 members; Kaufman, 12 members; Hunt-Rockwall-Rains, 25 members; Grayson, 51 members; Ellis, 16 members; Cook, 10 members; Dallas, 260 members; Hopkins (organized March 29), 8 members.

The Fourteenth District met June 8, in Paris, with 35 members present.

The second meeting was held in Sherman, December 14, with twenty-nine members present. Mrs. A. B. Pumphrey, State President, presented a very interesting report on the fight against socialized medicine. Good reports were heard from each county.

All dues are paid. A new auxiliary has been added to the Fourteenth District. On March 29, Hopkins County Auxiliary was organized at the home of Mrs. Byrd Longino, with eight members.

Each county president has been written several letters during the year.

Mrs. S. M. Hill, Dallas.

Report of Fifteenth District Council Woman

The Fifteenth District is composed of ten counties, in which nine medical societies are represented. There are four organized auxiliaries and six counties not organized. There are five members-at-large in this district, three from Cass County, and two from Camp County.

The District meeting was held in Atlanta, October 19, 1943, with fifteen members present. Mrs. A. B. Pumphrey, State President, and Mrs. W. Frank Armstrong of Fort Worth, were present.

The four organized counties reported regular monthly meetings. A large percentage of our members are actively engaged in Red Cross activities.

Mrs. C. H. Frank, Texarkana.

Council Women from Districts 3, 5, 7, 9, 11 and 14 were present.

A constructive open forum concerning Auxiliary problems and possibilities was led by Mrs. R. H. Crockett, president of Bexar County Medical Auxiliary. Legislative and organization problems, chiefly in the smaller auxiliaries, were the main issues dealt with.

After a short intermission Mrs. S. H. Watson, assisted by Mrs. S. M. Hill, conducted the Memorial Service.

MEMORIAL SERVICE

The circle with neither beginning nor ending is the Emblem of Eternity. The circle shows completeness, perfection, continuity, and is therefore an ideal representation of the thought of Eternal Life—world without end.

The Roll Call of those departed, was read as follows:

Mrs. Bert C. Ball, Fort Worth.
Mrs. J. N. Bone, Jacksonville.
Mrs. W. A. Beckman, Wichita County.
Mrs. F. H. Burnside, Wichita County.
Mrs. Chas. T. Carlisle, Dallas.
Mrs. B. F. Gibson, Lufkin.
Mrs. T. M. Jeter, Fort Worth.
Mrs. Hugh L. McLaurin, Sr., Dallas.
Mrs. Harry Johnson, San Antonio.
Mrs. Frank Martin, San Antonio.
Mrs. C. M. Rosser, Dallas.
Mrs. W. C. Tenery, Waxahachie.
Mrs. S. D. Whitten, Greenville.
Mrs. Blanch Craige, El Paso.

The poem of A. L. Tennison, "Day Is Done", was then read.

Mrs. P. R. Denman read Psalm XXIII.

The benediction was given with the entire audience standing for one minute in silent prayer.

Mrs. Frank Carman, Dallas, Chairman of Registration, reported 96 registrations to date.

At 5:45 p. m. the meeting recessed to enjoy the dinner and entertainment as planned by the hostess auxiliary.

THURSDAY, MAY 11

The session reconvened at 9:30 a. m. on Thursday, May 11, 1944, at the Baker Hotel.

The invocation was given by Mrs. Charles Thomas, Houston, as follows:

Our Heavenly Father, it is with thoughtful hearts that we come together for this meeting of friends and fellow workers. May your love and guidance always be with those gathered here.

Father of all, we ask Thy blessings for the peoples of the world and we pray for time when peace shall reign upon this earth.

Father, we thank Thee for the good gifts Thou hast bestowed upon us; for the gift of sleep; for health and strength; for the vision of another day with its fresh opportunities of work and service—not without Thy guidance would we go forth to meet the duties and tasks of the day.

Strengthen us so that in all our work we may be faithful; amid trials, courageous; in suffering, patient; under disappointment, full of hope in Thee—we want in this short life of ours just as much as may be pressed of service true to God and man, so help us Lord to do our best. Amen.

The invocation was followed by the Club Collect in unison.

Greetings from Past Presidents of the Auxiliary were brought by Mrs. W. R. Thompson of Fort Worth.

GREETINGS FROM PAST PRESIDENTS

It is a pleasure to bring greetings, from the Past Presidents of the State Auxiliary, to you and your workers. Through the years, presidents have extended the aims of the Medical Profession, to various women's organizations, which look to the advancement of health and education, but you have done more than this, you have sent speakers to men's organizations. In Fort Worth we have talked with members of both groups, and we find they are grateful to you, for an intelligent interpretation of the Wagner-Murray-Dingell Bill, a pernicious piece of pending legislation, which seems to strike at the very foundation of organized medicine.

We are gratified to see younger women entering so enthusiastically into the problems of the profession. It reminds me of a saying we heard quite often in our school days:

Age needs youth, and youth needs age, because of its strength and wisdom.

Wisdom comes only through knowledge and experience combined.

Age needs youth, because of its enthusiasm, its visions, its hopes.

With this combination working so closely together, we are sure the Auxiliary will grow stronger through the years.

MRS. W. R. THOMPSON, Fort Worth.

Reports were continued from the point of recess the day before.

TEXAS REPORT TO THE NATIONAL AUXILIARY

The Woman's Auxiliary to the State Medical Association of Texas has faced this year, with the medical profession, the most dangerous period to its freedom and its ideals in the history of medicine. We have accepted this challenge, realizing our responsibilities as informed and educated citizens, and have used every means possible to show the people of Texas that federal control of medicine would result in poor medical care. I am happy to tell you our results are interesting and successful. We have letters from three-fourths of our Representatives and the two Senators from Texas, declaring that they are opposed to socialized medicine.

To secure this assurance from our legislators, much work was done. The State President traveled to the far corners and the near places in this big state. My travels have carried me 10,000 miles in Texas and 4,000 miles to the National meetings. In each one of my public appearances, the theme of the talk was "Our American Way of Life." Do we want to be citizens of a government "of the people, by the people and for the people," or do we want to be slaves of a bureaucracy? Socialized medicine is only "a foot in the door" of a totalitarian type of government. These talks stimulated and informed our 2,200 members to take up the torch in their own communities. Then our informed members and speakers appeared before lay audiences and such intensive pressure was brought to bear that we know the people of Texas and our Washington representatives want none of this type of medical care.

Our legislative chairman, Mrs. H. S. Renshaw, has sent out much material and information to our sixty-two County Auxiliaries and our fifteen districts in carrying out this program. These included the following: 15,000 pamphlets, "Political Medicine Yearly in the United States," published by the National Physicians' Committee; 2,000 pamphlets by the Committee on Constitutional Government, entitled "Private Enterprise" and "Bismarck's Golden Chain;" 1,000 cartoons showing the sick patient who dies before the arrival of the doctor under federal medicine; 194 plays, "Socialized Medicine" with the theme that medical care would be inferior under government control; and 300 letters of suggestions on how to combat this program and give correct information to the lay groups.

We have in Texas sixty-two organized Auxiliaries, one of which is new and one re-organized. As in many other states, we have sent more than one-third of our doctors away in the Armed Forces and many wives have gone with them. Those of us at home have felt that our contribution lay in the preservation of our way of life for those who are

gone. We hope that they may return to as normal a home front as they left.

This brings us to our share of war work and Red Cross activities. We have continued with courageous determination to carry on in all lines of war activities. These important endeavors are headed by doctors' wives in a large degree. We have tried to assemble a correct number of hours but due to our size and distances, we cannot give accurate statistics in this regard.

Our members have participated in bond drives, Red Cross donation drives, tuberculosis seal sales, and all such worthy causes. We have served in every county in the U.S.O. and Canteen work. We have always invited the wives of doctors in Service, stationed in our towns, to come to meetings.

We have never forgotten that we were organized first for the purpose of promoting friendship and good times for ourselves and our husbands. Almost all of our groups plan their programs with one social affair at least in the year's activities.

Our various other projects are as follows:

1. Health education—gained not only by the promotion of the Essay Contest (the subject chosen this year being "The Doctors Fight at Home and Abroad"), but through the radio programs and through our health films supplied by the State Medical Association. We think there is a great future to health education to the child and to the adult in these clever health films, and we plan to utilize them wherever possible in the schools, P.T.A.'s, and Federated Clubs.

2. Carrying on with the subject of Health Knowledge, we have pursued one goal by the promotion of *Hygeia* to doctors, their families and the public. For the fifth consecutive year, one of our small Auxiliaries, numbering eleven members, way up in the Panhandle of Texas, in scattered communities, has won the first prize in Group I of the National *Hygeia* contest. The prize again is $40.00. Two other Texas Auxiliaries were given "honorable mention." We were able to show a substantial increase over last year.

3. We promoted interest in the National Auxiliary by subscribing to the *Bulletin.* Our members were disappointed because the *Bulletin* was not out early enough to help us. We would suggest for the future, in order to secure an even, united effort in all the states, that the National publications be gotten to the states in the early summer months rather than in the fall.

4. Physical examinations have been stressed but are not reported as consistently as before, and we realize that many have to be deferred because of emergency cases demanding immediate attention and with very few doctors left to do them.

5. Our programs over the state have been of varied and constructive interest. Worthwhile programs and projects do much to keep enthusiastic groups functioning.

6. Our publicity has been carried on over the state by newspapers, and in the TEXAS STATE JOURNAL OF MEDICINE, and by many form letters. There can be no doubt but that our aims and programs were understood both by our members and by the public.

7. We have undertaken a new project this year, of which we are very proud. The State Medical Association of Texas asked us to help them enlarge their library by gifts of museum value and by financial contributions. This library is open to all doctors and provides a postgraduate source of knowledge. I am proud to report that we have gotten one $1,000 gift, many lesser amounts and some interesting relics. This year we have endeavored to acquaint our own members with its value, and next year we plan to bring this worthy cause to the attention of wealthy Texas laymen.

8. We are holding intact our two Student Loan Funds, and we are increasing our Memorial Fund by gifts. This fund is for doctors' widows who need help.

9. Texas, in trying to organize more county auxiliaries, has found it difficult with so many doctors gone from the smaller towns. Both doctors' wives and the doctors have been contacted and were also written by our State Association. We feel it worthwhile to have the Association's support and know that when the war is over many will organize. We do have this, of which we are proud—fifty-nine new members at large, who wished to be State and National members and who lived in communities with not enough doctors' wives to effect local organizations. We feel that that shows a grand spirit. Most of these ladies come from the ranching sections of Texas.

My report is closed with this letter of appreciation for our year's work, written by the Secretary of the State Medical Association of Texas. It follows:

"Dear Mrs. Pumphrey:

"In closing the affairs of the State Medical Association of Texas, for the fiscal year, it occurs to me that some appreciation should be expressed to you in particular, and your organiaztion in general, of the service it has rendered the cause of medicine in the matter of Public Relations.

"In the opinion of those of our number who have been directing our Public Relations efforts, your activities in that connection have been outstanding and worthy of comment. Our President, Dr. C. S. Venable, of San Antonio, and our Committee on Public Relations, headed by Drs. Merton M. Minter and Walter G. Stuck, join me as Executive Secretary in assuring you that these services are greatly appreciated.

Very truly yours,
Holman Taylor, M. D.,
Executive Secretary."

MRS. A. B. PUMPHREY, President.

The report of the President was filed, and Mrs. Pumphrey gave an informal discourse of her travels entitled, "My Butterfly Days of 1943-1944", which was both amusing and instructive. The recommendations included:

1. Continue intensive legislative work.
2. Keep small auxiliaries active.
3. Get small auxiliaries started right on year's work by having meeting with the Council Women in September or October.
4. Use material sent.
5. Read the JOURNAL regularly, and be publicity-minded.
6. Hold the home front now. Later turn executive work over to the younger members as they return.
7. Meet when and where the medical societies meet.

REPORT OF THE GEORGE PLUNKETT RED STUDENT LOAN FUND

The report from the South Texas Commercial National Bank has been forwarded to the Treasurer for the Auditor's Report, and will be condensed in that report.

We are listing herewith additional amounts sent in after the Bank statement had been made.

Harris Auxiliary	$25.00
Nueces Auxiliary	5.00
Six County Auxiliary	5.00
Mrs. Lester Keyser Auxiliary	5.00
Mrs. W. A. Lee, Denison	3.00
Liberty-Chamber Auxiliary	1.00
Additional	1.00
	$45.00

These donations to the Fund will be included in the next annual report.

The Auditor's report reveals how well doctors are paying off their notes. There are only seven notes now, with only one overdue. If said party should see the report, it is hoped that he will let us hear from him in some manner. We dislike to publish names.

Respectfully submitted,

Mrs. J. Charles Dickson, Chairman, Houston,
Mrs. J. Frank Clark, Abilene,
Mrs. A. J. Streit, Amarillo.

Report of the First Vice-President—Membership Chairman

It is a genuine pleasure to report a total paid-up membership of 2,177. Of this number, 80 for districts 5, 6, 9 and 12 are members-at-large, 119 are new members, with an incomplete count showing a membership of approximately 500 wives of Texas doctors now in service.

Several auxiliaries have so few members at home, with distances so great that they can not meet regularly. In a few auxiliaries, members have become members-at-large, meeting with the nearest county whenever possible. It is with gratitude that we extend congratulations to Mrs. S. M. Hill, Council Woman of District 14, and a welcome to our newest auxiliary, Hopkins County, organized with 14 members.

Your Chairman was privileged to meet with several Council Women at the Fall Board Session in Fort Worth, and had a delightful visit with auxiliary members both local and visiting, from Houston, Big Spring, Stephenville, Dublin, San Angelo, Bracketville, Knox City, McAllen and Waco, who were attending the Sectional meetings of the State Medical Association in San Antonio. Personal letters, with a questionnaire and a map of Texas, showing the organized and unorganized auxiliaries of that district, were mailed to each Council Woman; a mimeographed letter with a questionnaire was sent to each County President; various personal notes, including invitations to the annual meeting and Council Women's breakfast, were sent to Council Women.

May I thank each Council Woman and County President for her interest, cooperation and efforts in not only maintaining membership but increasing our numbers. Since my efforts were delayed and by letter, I feel that we are particularly indebted to our capable and lovely President, who personally inspired us with her smile and her sincere enthusiasm. Without each of you, under her efficient leadership, this report would not be possible.

Mrs. E. W. Coyle, San Antonio.

Report of the Second Vice-President

Our Motto for the year was "Health Is Our First Line of Defense."

Fifty-nine letters were written to local auxiliaries. One hundred and eighteen cards followed these letters. Ten other letters were written, and one long distance call made. Thirty-three responses were received from auxiliaries, reporting 1,692 physical examinations of doctors, their wives, and children. Also 189 examinations of servants were reported, making a total of 1,980.

An approximate estimate of 1,676 of our doctors in the service, brings the total number of physical examinations for the year to 3,656.

Mrs. R. H. Harrison, Jr., Bryan.

Report of Third Vice-President

Measurements of your third vice-president's *(Hygeia* chairman's) activities are vague and nonconclusive, because the far reaching effects of *Hygeia* in the hands of readers in Texas are immeasurable. Statistical reports for 1943-1944 indicate *Hygeia* subscriptions have increased.

Many individual members have been dilatory in subscribing; collectively, auxiliaries have failed to accept the responsibility for promoting the distribution of *Hygeia* as placed in our hands by the American Medical Association. Regardless of their immense war services, vigilant and loyal county chairmen developed plans which were presented to the State Executive Committee in September, and these chairmen have responded to your State chairman's correspondence of October, January, and March. For subscriptions secured from September 1, 1943, to January 31, 1944, Texas won the nation-wide prize in Group I, this signal honor going to the Auxiliary of Childress-Collingsworth-Hall Counties, with Mrs. R. E. Clark of Memphis; "Honorable Mention" is accorded Hunt-Rockwall-Rains Counties, Mrs. B. F. Arnold, Greenville; and Lamar County, Mrs. J. E. Armstrong, Paris. Fourteen auxiliaries increased their subscriptions. There was an increase of 200 persons receiving *Hygeia,* and Texas secured a total of 559 subscriptions.

Mrs. E. H. Marek, Yoakum.

Report of the Fourth Vice-President

It was my privilege to attend the State Auxiliary Board meeting in Fort Worth on September 10. I plan to attend the meeting in Dallas on May 10 and 11.

Letters were mailed to the County Presidents with program suggestions for the year. The essay subject, "Medical Science Fights at Home and Abroad," with rules and a suggested outline were also mailed out.

In January, postcards were mailed out as a reminder to get busy on the Essay Contest and to have the essays in to me by March 15th.

This essay has been a timely subject and a most interesting one. We have had a good response, and the papers are creditable. The papers will take much studying to judge them, and the winners will be announced at the May State Board Meeting in Dallas.

In February, postcards were mailed to County Presidents, urging them to use the interesting and educational films in the Lending Film Library in Fort Worth. These films were available for instructive programs.

Doctors' Day was observed by many auxiliaries, and doctors from the war areas have given some of the most interesting programs.

I have answered all letters as soon as possible and have been ready at all times to be of any assistance.

Our Auxiliary members have been very busy with their war work. They have worked in the many phases of the Red Cross, such as sewing, knitting, making of bandages, packing of supplies, as nurses aides, in the Blood Donor Center (such as nurses and staff assistants). The Canteen workers have done splendid work, and the members of the Motor Corps have been faithful in their work. Members have worked in the U. S. O. and in the camps and hospitals under the direction of the Red Cross.

I wish to thank Mrs. A. B. Pumphrey, our President, and each Auxiliary member for their help and splendid cooperation.

Mrs. Ramsay H. Moore, Dallas.

Report of Corresponding Secretary

During the year in which I have served as Corresponding Secretary to Mrs. A. B. Pumphrey, State President, I have sent between 500 and 600 letters and have made many of the trips with Mrs. Pumphrey to County Auxiliaries throughout the State. In addition, I have served as Legislative Chairman to the Tarrant County Auxiliary, and in this position I have made talks on the Wagner-Murray-Dingell bill, my

Committee and I having spoken before some sixty civic, educational and social organizations. I have also visited various towns in Texas where I endeavored to explain and clarify the provisions of this bill.

The year's work has been profitable, interesting and instructive.

MRS. W. FRANK ARMSTRONG, Fort Worth.

REPORT OF THE PUBLICITY SECRETARY

During the latter part of the summer, letters of instructions were sent out to each county and district president to be given to the publicity chairman of that auxiliary. The response has been average, but by no means satisfactory. The district meetings particularly have not been reported.

Publicity from cooperating auxiliaries has been consistent, and special credit is given to Dallas, El Paso, Harris, Hidalgo-Starr, Liberty-Chambers, and Jefferson Counties for their prompt and accurate reports.

War work has been dominant in all activities. Each doctor's wife has found her niche in some part of the Red Cross program, either as a board member or actual participant. Many are working in the Blood Donor Centers, in surgical dressing rooms, in the Motor Corps, Home Service Departments, etc. They also manned the booths in the Third and Fourth War Loan Drives. Many helped in the Infantile Paralysis Fund Drive.

Each Auxiliary has had one or more programs on the "Wagner-Murray-Dingell Bill" to show the evils of socialized medicine, the reports show.

Due to the fact that our publicity space in the JOURNAL is limited, I should like to recommend that we have all reports of the May meeting printed in leaflet form and sent to each county.

Births, deaths, and marriages in families of doctors have been reported again this year through auxiliary publicity chairmen.

Sincere thanks and appreciation go to Dr. R. B. Anderson, Dr. Holman Taylor and to the entire JOURNAL staff for cooperative assistance.

MRS. T. H. THOMASON, Fort Worth.

REPORT OF THE RECORDING SECRETARY

The Recording Secretary has attended each meeting of the Executive Board and has endeavored to keep accurate minutes of the transactions. Proper material has been compiled and sent in for publication in the JOURNAL.

Statistical forms, letters of instruction concerning annual reports, and other letters incident to the work of the office have been written.

A complete record of each report has been catalogued and filed.

It has been exhilarating to serve such a useful organization under the guidance of an enthusiastic leader, who showed us we have a worthy role to play for our country and for our doctors in war even more than in peace.

MRS. MARK H. LATIMER, Houston.

REPORT OF THE TREASURER

In explanation of the report which is enclosed herewith, I should like to say that it seems as though the "Manpower situation" has become most critical in the field of auditing. The books of the Woman's Auxiliary to the State Medical Association of Texas are in the hands of an auditor at the present time, but due to circumstances which we could not prevent, the final audit will not be finished until the June JOURNAL is ready to go to press. I should like to ask that you accept this tentative report of the Treasurer in lieu of the final audited report which will be printed in its entirety in the June issue of the TEXAS STATE JOURNAL OF MEDICINE.

I should like to call attention to the fact that the General Fund balance for this year is a little better than it was last year on May 1. We had a slight increase in membership over last year, and our expenses seem to have been a little less than usual.

As to the Memorial Fund, I feel that the Chairman will speak for herself. It is in excellent condition, and I am very proud of the fact that we now have another $2,000.00 bond on deposit with the Federal Reserve Bank of Dallas. This makes a total bond deposit in the bank of $7,000.00 — their value at maturity.

The Student Loan Fund is in good shape, and we have not advanced any loans for the past two years. Collections have been rather slow on the notes, but I have attributed this to the fact that so many of the doctors are in the Army and are in foreign service. In explanation of this fact, the Auditor informs me that we will not be able to press these notes while the doctors are in the Army, even though they are past due.

The Library Fund, which started only one year ago, is advancing quite nicely, and I would suggest that other Auxiliaries be informed of its worth.

The Treasurer's tentative report follows:

GENERAL FUND:			
Balance, May 1, 1943, as per audit		$ 588.28	
Receipts		1,175.50	
		$1,763.78	
Disbursements:			
President's Expense	$ 400.00		
Printing & Stationery	65.00		
Mrs. S. C. Applewhite (Express)	3.59		
Treasurer's Expense	3.97		
Secretary's Expense	10.00		
Dues to A. M. A.	544.25		
H. J. Thompson, Auditor	35.00		
Bank Charges on bad checks	.53		
Total Disbursements		1,062.34	
Balance in General Fund			$ 701.44
MEMORIAL FUND:			
Balance, May, 1943, as per audit		1,444.14	
Receipts		537.20	
		1,981.34	
Disbursements:			
Mrs. E. J. B. Gift	85.00		
Geo. Plunkett Red Fund*	25.00		
Federal Reserve Bank of Dallas	1,480.00		
Printing & Stationery	15.50		
Treasurer's Expense	5.00		
Total Disbursements		1,610.50	
Balance in Memorial Fund			370.84
STUDENT LOAN FUND:			
Balance, May, 1943, as per audit		4,684.87	
Receipts		695.00	
		5,379.87	
Disbursements:			
Treasurer's Expense		5.00	
Balance in Student Loan Fund			5,374.87
LIBRARY FUND:			
Initial Receipts			1,092.50
TOTAL CASH IN BANK AS OF May 6, 1944			$7,539.65

MRS. CAMELIA MINSCH, San Antonio.

AUDITOR'S REPORT

Mrs. Walter A. Minsch, Treasurer,
Woman's Auxiliary to the
State Medical Association of Texas,
San Antonio, Texas.
Dear Mrs. Minsch:

Pursuant to your request, I have examined the records and books of account of your Association,

and submit herewith my report in the following exhibit and schedules:

Description	Balance 4-28-43	Increase	Decrease	Balance 5-6-44
General Fund	$ 588.28	$1,175.50	$1,062.48	$ 701.30
Student Loan Fund	4,648.87	695.00	5.00	5,374.87
Memorial Fund				
—Cash	1,444.14	537.20	1,610.50	370.84
—U. S. Govt. Bonds	3,700.00	1,480.00		
Interest		33.00		5,213.00
Notes Receivable	7,463.00		666.18	6,796.82
Library Fund		1,092.50		1,092.50
George Plunkett Red Fund				
—Cash		687.95	34.95	653.00
—Savings	2,719.03	13.13		2,732.16
—Notes	1,884.94		579.11	1,305.83
Totals	22,484.26	5,714.28	3,958.22	24,240.32

All recorded cash receipts and disbursements were satisfactorily accounted for. The basis of the statement on the George Plunkett Red Fund contained herein is a report of the South Texas Commercial National Bank of Houston, Texas, Trustee for the Fund, and no verification of this report was made with the original records of the Trustee.

With the addition of $2,000.00 maturity value of U. S. Government Savings Bonds Series F purchased as of September 1, 1943, at a cost of $1,480.00, the Memorial Fund now owns $7,000.00 maturity value of these bonds, having a present value (including $33.00 interest accrued) of $5,213.00 as of May 6, 1944. Safekeeping Receipts issued by the Federal Reserve Bank of Dallas were produced for my inspection, and evidenced that these bonds are all held by that Bank.

Cash and securities show a net increase of $1,756.06 for the period covered by this report, and stood at $24,240.32 at May 6, 1944. Notes Receivable include some that are out-of-date, and it is suggested that renewal notes be secured in these cases.

We certify that, in our opinion and subject to comments in this letter, above exhibit and the schedule following in support thereof, show a true and correct view of the financial condition of the Woman's Auxiliary to the State Medical Association of Texas.

Respectfully submitted,

HAROLD J. THOMPSON.

Statement of Operations

WOMAN'S AUXILIARY
TO THE
STATE MEDICAL ASSOCIATION OF TEXAS
April 28, 1943 to May 6, 1944

Cash Balance April 28, 1943:			
General Fund		$ 588.28	
Student Loan Fund		4,684.87	
Memorial Fund		1,444.14	
George P. Red Fund—Trustee Account		2,719.03	
Total			9,436.32
Receipts:			
General Fund		1,175.50	
Student Loan Fund		695.00	
Memorial Fund		537.20	
Library Fund		1,092.50	
George P. Red Fund		701.08	
Total			4,201.28
			$13,637.60
Disbursements:			
General Fund		1,062.48	
Students Loan Fund		5.00	
Memorial Fund		1,610.50	
Library Fund			
George P. Red Fund		34.95	
Total			2,712.93
Cash Balance May 6, 1944:			
General Fund		701.30	
Student Loan Fund		5,374.87	
Memorial Fund		370.84	
Library Fund		1,092.50	
George P. Red Fund—Trustee Account			
—Cash	653.00		
—Savings Account	2,732.16	3,385.16	
Total			$10,924.67
Cash Balance April 28, 1943			$ 588.28
Receipts:			
Mrs. P. R. Denman—Refund from President's Expense Account		40.00	
Dues from Auxiliaries:			
Gray-Wheeler	$ 2.00		
Jefferson County 8.50— 27.00	35.50		
Cooke County 3.50— 3.50	7.00		
Mrs. A. B. Pumphrey	1.50		
Taylor-Jones	19.50		
Austin-Waller	4.00		
DeWitt-Lavaca	12.50		
Galveston	23.50		
Wichita 22.50— .50	23.00		
Henderson	4.50		
Johnson	6.00		
Childress-Collingsworth	5.50		
Tom Green	7.50		
El Paso	47.00		
Wharton-Jackson 10.50— .50	11.00		
Travis	27.50		
Hardin-Tyler	5.50		
Hunt-Rockwall-Rains	11.50		
Washington	11.00		
Nacogdoches	8.00		
Kerr-Kendall-Gillespie	14.50		
Bexar	131.50		
Caldwell	3.00		
Falls	8.50		
Ellis	6.50		
Grayson	13.00		
Lubbock-Crosby	13.50		
Potter	7.00		
Brown-Mills	5.00		
Liberty-Chambers	8.00		
Bell County	19.00		
McLennan	30.00		
Bowie-Miller	8.00		
Angelina	9.00		
Cherokee	5.00		
Lamar	10.00		
Tarrant	82.50		
Nueces	18.00		
Ector-Midland	7.00		
Dallas	166.00		
Kaufman	7.50		
South Texas District	9.00		
5th & 6th District 28.00— 2.00	30.00		
Baylor-Knox	4.00		
Harrison	5.00		
Smith	8.00		
Walker-Madison	9.00		
Tom Green	1.00		
Hidalgo-Starr	10.00		
Northwest District	11.00		
9th District	5.00		
5th District	1.00		
Brazos-Robertson	6.00		
Lampasas-Burnett	2.00		
6th District 12.00— 1.00	13.00		
Runnels	2.00		
Harris	163.00		
Hood-Erath	2.00		
Titus	1.50		
Hopkins-Franklin	7.00	1,135.50	
Total Receipts			$1,175.50
			$1,763.78
Disbursements:			
Expense—President		400.00	
Stationery		65.00	
Express Charges on Gift for National President		3.59	
Treasurer's Expense		3.97	
Secretary's Expense		10.00	
Dues to A. M. A.		544.25	
Auditing		35.00	
Charges on Money Orders		.67	
Total Disbursements			$1,062.48
Cash Balance May 6, 1944			$ 701.30

Student Loan Fund Operations

Cash Balance April 28, 1943			$4,684.87
Receipts:			
Donations from Auxiliaries:			
Nacogdoches	$ 2.50		
Liberty-Chambers	2.00		
Washington	10.00		
Taylor-Jones	5.00		
DeWitt-Lavaca	2.50		
Kerr-Kendall-Gillespie	5.00		
Harris	25.00		
Childress-Collingsworth	5.00		
Austin-Waller	1.00		
Hunt-Rockwall-Rains	2.50		
Angelina	2.50		
Tom Green	5.00		
Cherokee	5.00		
Bowie-Miller	4.50		
Bell	15.00		
Wharton-Jackson	2.00		
Harrison	2.50		
Total		$ 97.00	
Paid on Notes:			
No.			
82	$ 50.00		
74	25.00		
93	2.00		
13	62.18		
86	200.00		
96	100.00		
76	100.00		
Total		$ 539.18	
Interest Paid:			
No.			
82	6.00		
91	3.00		
49	3.00		
74	3.00		
78	3.00		
93	3.00		
13	7.82		
86 & 96	27.00		
76	3.00		
Total		$ 58.82	
Total Receipts			$695.00
			$5,379.87
Disbursements:			
Treasurer's Expense			5.00
Cash Balance May 6, 1944			$5,374.87

Memorial Fund Operations

Cash Balance April 28, 1943			$1,444.14
Receipts:			
Donations from Auxiliaries:			
Silver Offering at State Meeting in Memory of Mrs. Red and Mrs. McReynolds	$ 50.00		
12th District	7.90		
Mrs. Henry Hoskins	5.00		
Mrs. E. W. Coyle $5.00-$3.00	8.00		
Mrs. S. C. Applewhite $5.00-$2.50	7.50		
Mrs. W. F. Armstrong $5.00-$5.00	10.00		
W. C. Tracy	5.00		
Mrs. Henry Trigg	5.00		
Hunt-Rockwall-Rains $3.00-$6.00	9.00		
Wharton-Jackson $5.00-$2.00	7.00		
Dallas County	46.50		
Mrs. Philip Tucker	15.00		
Nacogdoches County	2.50		
14th District	5.00		
Bexar County $5.00-$25.00-$5.00	35.00		
Liberty Chambers	2.00		
Bell County, $11.30-$5.00	16.30		
Mrs. J. S. Moore	1.00		
DeWitt-Lavaca	1.00		
Mrs. Charles Thomas	5.00		
Tom Green	5.00		
South Texas District	3.00		
Taylor-Jones	10.00		
Kerr-Kendall-Gillespie	5.00		
Ellis	5.00		
Austin-Waller	1.00		
Childress-Collingsworth	1.00		
Travis	20.00		
Pecos-Brewster	5.00		
Cherokee, $1.00-$1.00	2.00		
Angelina	2.50		
Mrs. R. B. Homan	5.00		
McLennan, $10.00-$10.00	20.00		
El Paso	15.00		
Nueces	5.00		
Harris	10.00		
Harrison	2.50		
Total	$362.20		
Paid on Notes:			
G.		$ 54.00	
C. H. M.		73.00	
Interest Paid on Notes:			
G.		21.00	
C. H. M.		27.00	
Total		$ 175.00	
Total Receipts			$ 537.20
			$1,981.34
Disbursements:			
Mrs. E. J. B.—Loan for Operation on Eyes		$ 85.00	
George Plunkett Red Fund—One half Silver Offering at State Meeting		25.00	
Federal Reserve Bank, Dallas — Purchase $2,000.00 Series F U. S. Savings Bonds		1,480.00	
Memorial Cards		15.50	
Treasurer's Expense		5.00	
Total Disbursements			$1,610.50
Cash Balance, May 6, 1944			$ 370.84

Library Fund Operations

January 15, 1944, to May 6, 1944

Receipts:			
Donations:			
Dr. S. E. Thompson	$ 25.00		
Donations from Auxiliaries:			
Kerr-Kendall-Gillespie	5.00		
Dallas	1,000.00		
Hunt-Rockwall	2.50		
Bexar	10.00		
Dallas	25.00		
Harris	25.00		
Total Receipts			$1,092.50
Disbursements:			
None			
Cash Balance May 6, 1944			$1,092.50

George Plunkett Red Fund Operations

Cash Balance April 28, 1943			$2,719.03
Receipts:			
Donations from Auxiliaries:			
One-half Silver Offering at Meeting, May, 1943	$ 25.00		
Liberty-Chambers County	2.00		
Taylor-Jones, Abilene, Texas	5.00		
Harris County	25.00		
Nueces County	5.00		
Six County	5.00		
Mrs. Lester Kayser	5.00		
Mrs. W. A. Lee, Denison	3.00		
Liberty-Chambers	4.00		
Mrs. Fred Parker	5.00		
Total		$ 84.00	
Paid on Notes:			
C. S.	133.35		
S. M. P.	116.72		
C. G. Y.	129.04		
A. B. P.	200.00		
Total		$ 579.11	
Interest Received:			
On Notes	24.84		
On Savings Account	13.13		
Total		$ 37.97	
Total Receipts			$ 701.08
			$3,420.11
Disbursements:			
Trustee Fee			34.95
Cash Balance May 6, 1944			$3,385.16

Notes Receivable

Note Number	Balance 4-28-43	Increase	Decrease	Balance 5-6-44	Interest Received
28	$216.00			$216.00	
82	200.00		$ 50.00	150.00	$ 6.00
91	100.00			100.00	3.00
49	100.00			100.00	3.00
74	100.00		25.00	75.00	3.00
78	100.00			100.00	3.00
M. F. 61	250.00			250.00	
30	463.38			463.38	
M. F. 83	196.00		27.00	169.00	12.00
M. F. 87	150.00		27.00	123.00	9.00
84	150.00			150.00	
1	175.00			175.00	
2	50.00			50.00	
69	28.75			28.75	
72	50.00			50.00	
73	50.00			50.00	
70	50.00			50.00	
71	50.00			50.00	
47	100.00			100.00	
51	100.00			100.00	
25	50.00			50.00	
35	105.70			105.70	
77	100.00			100.00	
93	100.00		2.00	98.00	3.00
94	100.00			100.00	
37	96.25			96.25	
36	175.00			175.00	
98	100.00			100.00	
15	127.55			127.55	
95	100.00			100.00	
57	100.00			100.00	
M. F. 16	450.00		73.00	377.00	27.00
17	124.94			124.94	
13	200.63		62.18	138.45	7.82
75	100.00			100.00	
13 A	100.00			100.00	
13 B	100.00			100.00	
39	100.00			100.00	
48	100.00			100.00	
M. F. 8	200.00			200.00	
11	125.00			125.00	
45	193.66			193.66	
53	100.00			100.00	
87	100.00			100.00	
58	150.00			150.00	
92	100.00			100.00	
90	100.00			100.00	
80	100.00			100.00	
89	100.00			100.00	
5	304.14			304.14	
—	75.00			75.00	
59	150.00			150.00	
81	150.00			150.00	
—	6.00			6.00	
86	200.00		200.00	—}	27.00
96	100.00		100.00	—}	
76	100.00		100.00		3.00
Total	$7,463.00		$666.18	$6,796.82	$106.82

Addendum, Report of Treasurer

May 20, 1944.

The Books of the Woman's Auxiliary to the State Medical Association of Texas were audited as of May 6, 1944. However, several contributions were received to the Memorial Fund, and dues in arrears were received. I feel that these should be mentioned, although they do not show in the audit. They will appear in the statement of operations for the year 1944-1945.

The Memorial Fund received added checks, totaling $454.00, and the General Fund dues amounted to $9.00.

Respectfully submitted,

Mrs. Camelia Minsch, San Antonio.

Report of Legislative Chairman

All Auxiliaries must know that the year 1943-1944 has been an important one for medical legislation. We have worked diligently and unceasingly against the Wagner-Murray-Dingell Bill, not only because of its definite threat to the practice of medicine as we know it should be for the good of all, but also because of its threat to free enterprise generally.

As legislative chairman I have sent to each State Auxiliary Officer, Council Woman and County President three letters concerning this bill and suggesting ways to fight it. Enclosed in the first letter was a reprint of the minutes of the State Executive Board meeting held in Fort Worth in September, at which time the ground work for the year's legislative program was laid.

So many of the copies of the pamphlet, "$3,048,000,000.00 of Political Medicine Yearly in the United States" have been distributed that it has been impossible to keep an accurate check of the number, but as nearly as can be estimated, 15,000 copies have been put in the hands of the laity as well as auxiliary members. In addition many groups have ordered these direct from the National Physicians' committee. To the members of the State Executive board, 196 copies of a play on socialized medicine have been sent. They have also received 1,000 copies of a leaflet, "Bismarck's Golden Chain," and 1,000 copies of another leaflet, "I Am Private Enterprise,,' which were ordered from the Committee on Constitutional Government. Along with these latter were sent 1,000 reprints of a cartoon depicting medical care under government control.

I have attended several District and County meetings with Mrs. Pumphrey in the interest of medical legislation besides the many talks I have made in Fort Worth against the Wagner-Murray-Dingell Bill.

I sincerely wish that each auxiliary member would consider herself a legislative chairman in order to keep herself better informed, as well as all her friends and acquaintances, because through your splendid cooperation and untiring efforts, we have helped, at least, to put off the evil day when socialized medicine is an American institution, but we have not yet won the fight. Socialized medicine looms just as large on the immediate horizon as it did this time last year, though it will probably rise under a different banner.

Mrs. H. S. Renshaw, Fort Worth.

Report of the Library Fund Committee

The Library Fund Committee reports that on March 8, 1944, Mr. and Mrs. G. A. Ray of Pettus, Texas, in memory of their daughter, established our first endowment fund of $1,000.00, which is to be known as "The Romayne Ray Memorial Fund."

The aims of this newly created committee are to encourage bequeaths and memorials to this already fine library which serves Texas physicians over night with post graduate information on any medical subject or scientific advancement. It also plans to encourage dissemination of health information through films available to county medical associations and auxiliaries.

We have persuaded those who have old and rare medical books, old instruments, portraits and such museum material, to either lend or give it to the Library. In time this collection will be a treasure of medical lore in which we may have real pride.

Can we not respond to these appeals and prove that we are truly an auxiliary?

I am happy to have served the Library Committee this year and feel we are making a good start in this work in which the doctors have asked us to cooperate.

The Library Fund—

Memorial, Romayne Ray, by Mr. and Mrs. G. A. Ray	$1,000.00
Memorial, Dr. R. B. Homan by Dr. and Mrs. Sam Thompson	25.00
Memorial, Col. J. H. Gambrell by Mrs. R. B. Homan and Mrs. R. B. Homan, Jr.	5.00
Memorial, Dr. D. L. Cummins by Mrs. A. B. Pumphrey	25.00
Hunt-Rockwall-Rains Auxiliary	2.50
Kerr-Kendall-Gillespie-Bandera Auxiliary	5.00

Bexar County Auxiliary	10.00
Harris County Auxiliary	25.00
Dallas County Auxiliary	25.00
Balance May 10, 1944	$1,122.50

Mrs. S. F. Harrington, Dallas.

Report of the Historian

I am not able to give a complete report because I have been unable to obtain the information necessary from county presidents, as requested of them.

On February 28, 59 postal cards were addressed to county presidents. On March 30, 48 cards were sent to county presidents. Eight letters have been written. On April 25, 34 letters were addressed to county presidents.

In response to these efforts to secure the necessary information, consisting of 149 communications, I have received 38 replies from county presidents, and 13 letters on miscellaneous subjects, making a total of 51 replies.

Mrs. George Turner, El Paso.

Report of the Memorial Fund Chairman

The Treasurer's report as of May 6, shows a balance of $370.84. There are several additions to be included before the books are audited.

	$370.84
A tribute to Mrs. S. D. Whitten from the Past Presidents Dinner	$ 10.00
Mrs. A. B. Pumphrey, in memory of her mother, Mrs. D. L. Cummins	25.00
Dr. and Mrs. Henry B. Trigg	12.00
Dallas County Auxiliary	403.50
The balance will therefore be	$821.34

Your chairman mailed out over 200 letters including a letter to all county presidents and council women and 54 memorial cards. Many answers expressed a growing interest in and commendation of the Memorial Fund.

One interested friend asked if there had been any request for aid so far, and who would be eligible to apply. It is nice to deal with people who really seek information. And with as large an organization as ours, where the president, treasurer and chairman in county auxiliaries change every year it is necessary to keep telling the same old story.

There have been many beneficiaries of this fund. They were widows or dependents of doctors who were members of the State Medical Association of Texas at the time of their death, or of doctors who were members of the American Medical Association at the time of retirement.

In the early years it was too small to use as a gift fund so it was operated as a loan fund in conjunction with Student Loan. Since 1938 it has been handled as a separate fund beginning with a balance of only $1,018.50.

In 1940 a loan was made on request to a doctor's widow in South Texas but in 1942, on advice of friends closely associated with her, the loan was considered a gift.

Also in 1940 a substantial gift of $100.00 was made to a widow and former prominent Auxiliary member in Central Texas. In 1941 a loan of $350.00 was made to a doctor's son who could not qualify for Student Loan. He is a doctor now and paying the notes as they come due.

Since the last state meeting $85.00 has been given to a dear little lady for nursing care after a cataract operation. The operation itself and hospital fees were given as professional courtesy.

Eighty-five dollars in one year is a very nice gift considering it takes more than $2,800.00 to yield as much at 3 per cent interest. The fact is, we need more principal in order to have more interest to use yearly. We do have $5,180.00 serving a double purpose in War Bonds, which will render a good profit at maturity.

Just as sure as there is a rise and fall in the waves of the ocean, there is an abundance of money and few calls for it today, and there will be a scarcity of it and many calls tomorrow. When the boys come home (or when they don't) there will be a need for every available resource. Will we be in a position to help some of our own group? And will each of us feel she has a real part in this love offering—I ask you this personal question.

Mrs. O. M. Marchman, Dallas.

Report of the Student Loan Fund Chairman

This report covers the period from May 1, 1943, to May 6, 1944.

The balance on hand on May 1, 1943, as shown in the Auditors' Report was $4,684.87.

The receipts since that date, from student's notes have been $598.00; from other contributions, $97.00, making total receipts of $695.00.

Disbursements from the fund were $5.00 expense incurred by the Treasurer of the State Auxiliary.

The balance in the bank on May 6, 1944, is $5,374.87.

Payment on notes, principal and interest, have been received during the past year as follows:

Dr. E. D. A.	$ 59.00
Dr. W. M. A.	34.00
Dr. M. F.	5.00
Dr. G. C. G. (In full)	327.00
Dr. J. E. L.	103.00
Dr. W. M. P.	70.00
Total	$598.00

Mrs. M. L. Graves, Houston

Report of Revisions Committee

In the Constitution and By-Laws of the Woman's Auxiliary to the Texas Medical Association, there is no rule governing the election to Honorary Membership.

Therefore we offer the following recommendations:

"Honorary membership shall be conferred only by reason of exceptional services to the Auxiliary or exceptional distinction of the woman upon whom it is to be conferred.

"Honorary membership shall be conferred by the Auxiliary on the unanimous recommendation of the Executive and Advisory Boards, at a regular meeting.

"An honorary member, who is a member of this Auxiliary, shall retain all rights of membership.

"An honorary member who is *not* a member of the Auxiliary shall be entitled to all rights of membership, except the right to vote and hold office."

To meet the incidental expenses in connection with annual meetings of the State Auxiliary, we recommend that, "A registration fee of $0.50 per capita be paid at all future annual meetings."

Mrs. John W. Burns, Cuero,
Mrs. Joe B. Foster, Houston,
Mrs. R. B. Homan, Sr., El Paso.

Mrs. T. G. Young of Roscoe, chairman of the Reference Committee, stated that nothing had been referred to that committee during the past year.

Report of Archives Committee

The twelfth annual report of the Archives Committee is more condensed than ever.

War conditions have rendered many District and Association meetings impossible.

We are indeed glad that the State Auxiliary is attempting its annual meeting, though curtailed in many respects.

Many local organizations have failed to print Year Books. A few have been sent in, and for these we are grateful. A very lovely though brief and, as stated, somewhat inaccurate sketch of Hunt County Auxiliary has been received from Mrs. J. W. Ward and Mrs. T. C. Strickland of Greenville, the latter historian of that Auxiliary for 1943-1944.

Local historians will please recognize the fact that it is impossible for the Archives Chairman to make changes in minutes long past recorded in the minutes of the State Auxiliary. She will, however, endeavor to make such "Notes" as possible to correct inaccuracies that have occurred in cases specially pointed out.

The Committee is happy to state again that all Archives material now in the hands of present Chairman is in good condition.

Mrs. W. A. Wood, Chairman, Waco,
Mrs. William Snow, Abilene,
Mrs. H. E. Nicholson, Wheeler,
Mrs. J. H. Stiles, Lubbock.

Recommendation — That one member of the Archives Committee be named annually from Fort Worth. Such member would have ready access to all archives material placed in the State Medical Association Library in Fort Worth.

Mrs. W. A. Wood, Chairman, for Committee.

Report of Texas Research to S. M. A. Chairman

I realize I have done very little as Chairman of Texas Research to S. M. A. I have received only two papers. These were mailed immediately to Mrs. Harvey Garrison, Jackson, Mississippi. I hope they are not too late.

One paper entitled "The First Thanksgiving" was contributed by the Auxiliary to the Hidalgo-Starr Medical Society. The other paper, concerning the Wagner-Murray-Dingell Bill was sent in by Tarrant County Auxiliary.

Mrs. T. W. Williams, Haskell.

Report of the Chairman of Public Relations and War Activities

During the year the chairman of Public Relations and War Activities wrote two letters to each of the presidents of 59 County Auxiliaries and mailed to them the following literature from the National Auxiliary; a folder announcing the "Doctors at War" program; a pamphlet concerning the Wagner-Murray-Dingell Bill; a copy of the war service program, and a war activities questionnaire.

Reports were received from the following counties: El Paso, Tom Green-Eight, Bexar, Kerr-Kendall-Gillespie-Bandera, Hidalgo-Star, DeWitt - Lavaca, Wharton-Jackson, Galveston, Harris, Travis, Jefferson, Hardin-Tyler, Nacogdoches, Bell, Johnson, Tarrant, Taylor-Jones, Wichita, Hunt-Rockwall-Rains, Bowie-Miller, Gregg, Dallas, Falls and Kaufman.

These reports show that the doctors' wives in Texas are doing a tremendous amount of war work of every type from the most humble services to the highest executive offices. One small auxiliary, due to the labor shortage, did the buying and cooking for seven months for the local hospital. Another furnished games to the guards of a prison camp. Three are sponsoring the war activities of the Girl Scouts and Campfire Girls. The members of one auxiliary stuffed and mailed all the Tuberculosis Christmas seals envelopes and furnished workers for the fourteen booths in the city. Another group wrapped 1,800 Christmas packages for soldiers. The auxiliaries sponsored the Mobile Blood Bank in their towns, and five others reported 592 hours spent in service for local Blood Banks.

Four groups sponsored public health programs and three others gave 611 hours to a Public Health Institute. One president reported that her auxiliary furnished speakers for 65 organizations where literature on the Wagner-Murray-Dingell Bill was distributed. There was one gift scholarship for nurses' training and one nurse sent for study of the Kenny treatment.

The doctors' wives spent 72,777 hours in surgical dressings, sewing, knitting; 17,081 hours as Nurses' Aides and home nurses; 17,344 hours as Grey Ladies; 7,481 hours in Welfare Stations and Day Nurseries; 4,539 hours in Canteens; 1,583 hours in Blood Banks; 1,026 hours in Public Health Institutes; 15,158 hours as hostesses at camps and the U. S. O. However, this is only a fraction of the time as only 24 of the 59 counties returned the reports. The questionnaires called for information that was very difficult to get—sometimes impossible. The grand total was 181,121 hours.

The chairman wishes to thank the presidents and chairmen who labored so long and diligently over these reports. She regrets that the splendid work of every auxiliary is not included in this report.

One president who turned in an excellent report said, "I cannot help but say that I feel the large amount of time required to make up a report such as this could have been spent to much better advantage. I know that the National Organization asks the state for this information, so I am sending it in, but I honestly do not think the National Auxiliary should ask for reports such as this."

Another president wrote: "These questionnaires do not seem to fit the small town."

These two presidents have answered, perhaps, the question why so few questionnaires are returned.

Mrs. Charles B. Alexander,
San Antonio.

Report of the Texas Bulletin Chairman

Two letters were written in September: One to each County President, asking for *Bulletin* subscriptions from the county officers and chairmen of committees, the other to every member of the State Board, requesting 100 per cent subscriptions.

In December, a card was sent to those not responding to the letters.

The record for the year is 76 subscriptions.

Cameron-Willacy Auxiliary lists twelve members, and ten have subscribed to the *Bulletin*. Mrs. J. D. Casey of San Benito, president of this auxiliary and member of the *Bulletin* Committee, should be highly commended for this spendid work.

I wish to thank the subscribers for their cooperation.

Mrs. Richard C. Bellamy, Daisetta.

Mrs. W. R. Thompson, Fort Worth, chairman of the Advisory Committee, reported that she had conferred several times with the President during the past year, with regard to Auxiliary work.

Report on Cadet Nurses Recruitment

The United States Cadet Nurses Recruitment was begun only four months ago; consequently we have only three recruits to report in schools of nursing. We have numerous prospective students, some of whom are in the process of making application of entrance to the schools of their choice.

Several auxiliaries have worked out a local plan that may be copied by others. For example, one auxiliary is giving a tea for the high school senior girls, and presenting a director of the school of nursing to talk to them concerning nursing education. One auxiliary has asked the cooperation of doctors' daughters to help consult eligible, interested girls. Another has secured the assistance of the P.T.A. Several have obtained excellent publicity in the local newspapers, giving the names of the local auxiliary members for more information and assistance.

I wish to express appreciation for cooperation in

this work and the hope that our progress in this significant war service continues.

MRS. J. E. HOGAN, Chairman,
Big Spring.

REPORT ON THE RESOLUTIONS CHAIRMAN

With the tragedies of war bringing us closer together in understanding and sympathy, and with the miraculous achievements of the medical profession uniting us in a deeper faith, it is easy to put away the formality of parliamentary resolutions and say heartily "We thank you."

We are grateful that the path of the busy Texas doctors annually leads "beside the still waters" of pleasant hospitality, and in the midst of war we have been able to pause and enjoy the friendly cordiality of the Dallas fraternity.

We thank the hostess auxiliary, their president and her committees, the hotels, the press and the ladies who have entertained us graciously. The determined effort of the Dallas women has made this meeting an outstanding credit to the Auxiliary of Texas.

Altered domestic conditions, inconvenience of travel and anxious hearts created a challenge for our leaders; but our capable, courageous president, efficient executive board and county presidents leave us with a warm appreciation of the teamwork and loyalty that characterized the difficult year's splendid achievements.

We are grateful for the spirit of this assembly that opens its sessions with the blessings of a prayer and closes with a thanksgiving.

MRS. MARVIN DUCKWORTH, Cuero.

At the conclusion of the annual reports, Mrs. P. R. Denman, Houston, moved that they be accepted as read. The motion carried.

Prize awards were then made. Mrs. Ramsey Moore announced and presented awards in the Essay Contest, and Mrs. A. B. Pumphrey presented the other awards. The Essay Contest winners were as follows: (1) Wichita; (2) Wharton-Jackson; (3) Hunt-Rockwall-Rains; (4) Travis; (5) Tarrant; (6) Taylor-Jones; (7) Dallas; (8) Bexar; (9) Hidalgo-Starr; (10) Kerr-Kendall-Gillespie-Bandera; (11) Falls; and (12) Bell.

Angelina County Auxiliary, with an increase of 33.3 per cent, won the silver loving cup for the greatest increase in membership. Mrs. R. B. Homan, El Paso, presented the cup to Mrs. M. O. Gibson, president of the Angelina County Auxiliary.

Other winners in the membership contest were: Johnson, 30 per cent increase, blue ribbon; McLennan, 26 per cent increase, red ribbon; Falls, 18 per cent, white ribbon, and Bell, with 17 per cent, honorable mention. It will be noted that all the winners except Angelina County are in District Twelve.

County Auxiliaries announcing 100 per cent of membership reading the JOURNAL were given blue ribbons, as follows: Childress-Collingsworth-Hall, Hidalgo-Starr, Austin-Waller, and Liberty-Chambers. Honorable mention in JOURNAL readers was given to other county auxiliaries, as follows: Galveston, with 90 per cent; DeWitt-Lavaca, with 80 per cent; Tom Green, with 75 per cent; Hardin-Tyler, with 73 per cent; Taylor-Jones, with 71 per cent; and the Six Counties Auxiliary, with 64 per cent.

In the Hygeia Contest, Childress-Collingsworth-Hall won first prize of $40 as a National Auxiliary prize for the group with membership from one to thirteen; Hunt-Rockwall-Rains and Lamar received honorable mention in the national contest. Tarrant County Auxiliary showed the largest increase in number of subscriptions in the state, with fifty-four, while Dallas obtained the largest number in the state, with 119.

In the contest for 100 per cent organization of district, District Eleven, with Mrs. W. D. Sory of Jacksonville as Council Woman, remained the only district with 100 per cent organization.

In the contest for 100 per cent organization of counties, Liberty-Chambers lacked only one of having 100 per cent membership.

Physical examination awards were given as follows: Galveston, blue ribbon, 249 examinations, 125 members; Dallas, red ribbon, 542 examinations, 332 members; Brown-Comanche-Mills-San Saba, white ribbon, eight examinations, eight members.

Awards for the best county auxiliary report given in person were made as follows: from members of 1 to 25, Brown-Comanche-Mills-San Saba, blue ribbon; for membership of 25 to 50, Taylor-Jones, blue ribbon; membership of 50 to 100, Travis, blue ribbon; membership over 100, Harris, blue ribbon. The four aims of the Auxiliary were considered in making the awards, as follows: (1) Health education; (2) Legislation; (3) Public Relations; (4) War Work.

The two recommendations of the Revisions Committtee were read by the secretary (page 137).

Upon motion of Mrs. H. S. Renshaw, it was voted to accept the recommendation as read, in regard to Honorary Membership.

Upon motion of Mrs. R. C. Bellamy, it was voted to charge a registration fee of fifty cents at each annual meeting.

In regard to the inactivity of the Student Loan Fund during the war, upon motion of Mrs. W. R. Thompson it was voted to recommend to the Student Loan Fund Committee, that part of the money not in use be invested in War Bonds.

Mrs. P. R. Denman, Chairman of the Nominating Committee, presented the following nominees:

President—Mrs. S. E. Thompson, Kerrville.

President-elect—Mrs. C. B. Alexander, San Antonio.

First Vice President—Mrs. Ramsay Moore, Dallas.

Second Vice President—Mrs. H. B. Allen, Brownwood.

Third Vice President—Mrs. C. C. Jowell, Cleburne.

Fourth Vice President—Mrs. Paul H. Powers, Waco.

Corresponding Secretary—Mrs. H. H. Gallatin, Kerrville.

Publicity Secretary—Mrs. E. L. Howard, Fort Worth.

Recording Secretary—Mrs. Mark H. Latimer, Houston.

Treasurer—Mrs. F. R. Rugeley, Wharton.

Parlimentarian—Mrs. E. W. Jones, Wellington.

There being no further nominations from the floor, upon motion of Mrs. H. Leslie Moore, it was voted to elect the slate as named and instruct the secretary to cast the unanimous ballot. The secretary cast the ballot and the president declared the election.

The following communications were read: telegram from Mrs. E. R. Townsend, Eastland; telegram from Mrs. Scott C. Applewhite, to Mrs. Pumphrey; telegram from Mrs. Scott C. Applewhite to Mrs. Alexander, and a letter from Mr. and Mrs. G. A. Ray.

Mrs. Frank Carman, Registration Chairman, reported a final registration of 120.

The newly elected officers came forward and were installed. Mrs. P. R. Denman, Installing Officer, was assisted by Mrs. A. B. Pumphrey and Mrs. H. Leslie Moore. Mrs. Denman introduced each officer by giving intimate and entertaining high-lights from their school and courtship days. Then the qualifications for each officer were compared to the attributes of a particular flower. As each lady took office she was presented a corsage of this flower from Mrs. Pumphrey.

Mrs. Pumphrey presented the gavel to the newly installed president. Mrs. S. E. Thompson responded as follows:

ACCEPTANCE SPEECH OF MRS. S. E. THOMPSON

In accepting this emblem of honor from you who has served so well, I feel deeply the responsibility invested in me, the love and loyalty of my very own Auxiliary. The coöperation and eagerness to serve by my fellow officers makes me lift my head in pride, looking ever forward to a successful and happy year.

We as an organiaztion have never faced a year or a time so filled with grave and important problems as the ones standing out before us today—social, moral, economic, political—state, national and international, racial, and interracial.

We should feel that the Woman's Auxiliary to the State Medical Association of Texas has a definite call in helping to solve the problems of reorganization and reconstruction. Upon their sane and sound solution will depend not only our welfare, and independence, but the welfare and civilization of all the peoples of this earth. Unless these problems are solved wisely, we will find ourselves in a new world stripped of all we hold dear—FREEDOM.

And now as we return to our husbands, our homes and our communities let us resolve anew that nothing can take away our constitutional and human rights. That our boys who are fighting for freedom all over the world may come home and find it as they left it.

They will not fail. We cannot fail.

And now in closing this meeting I want to tell this little story that you may remember; it reveals what I shall strive to stand for as President of the Auxiliary.

When Queen Wilhelmina of the Netherlands was just a small child and her birthday came around many of the children came to bring flowers and greetings. As she looked at them with childish glee from the balcony of the castle, she turned to her mother saying, "Oh, Mother, do all these people belong to me?" Her wise mother said, "No my dear, you belong to them."

I shall endeavor to remember this and try to be the wise councilor this beloved Queen is to her people.

Mrs. Thompson announced a Post-Executive Board meeting to be held immediately following the luncheon.

There being no further business the meeting adjourned, sine die.

MRS. MARK H. LATIMER,
Recording Secretary.

POST EXECUTIVE BOARD MEETING

The meeting of the newly installed Executive Board was called to order by the president, Mrs. S. E. Thompson, Kerrville, at 2:30 p. m. on Thursday, May 11, 1944, at the Baker Hotel, Dallas.

Invocation was given by Mrs. John W. Burns, Cuero.

Mrs. Thompson extended greetings and announced appointments of committee chairmen, as follows:

CHAIRMEN OF STANDING COMMITTEES

Legislative—Mrs. S. H. Watson, Waxahachie.

Library—Mrs. L. L. Keyser, Fredericksburg.

Historical—Mrs. C. P. Yeager, Corpus Christi.

Memorial Fund—Mrs. O. M. Marchman, Dallas.

Student Loan Fund—Mrs. M. L. Graves, Houston.

George Plunkett Red Student Loan Fund—Mrs. W. E. Ramsey, Houston.

Resolutions—Mrs. Richard Keyes, Amarillo.

Revisions—Mrs. J. B. Foster, Houston; Mrs. R. B. Homan, El Paso; Mrs. J. F. Clark, Abilene.

Reference—Mrs. P. R. Denman, Houston.

Archives—Mrs. W. A. Wood, Waco.

Texas Research to S. M. A.—Mrs. R. C. Bellamy, Daisetta.

Public Relations—Mrs. L. B. Windham, Tyler.

Finance and Budget—Mrs. R. B. Homan, El Paso.

Bulletin—Mrs. Rufus Widden, Gainesville.

Advisory—Mrs. S. F. Harrington, Dallas.

Special Advisory—Mrs. Wm. Hibbits, Texarkana.

Memorial Service—Mrs. John T. Moore, Houston.

Nurses Recruitment—Mrs. J. E. Hogan, Big Spring.

Nominating—Mrs. A. B. Pumphrey, Fort Worth.

COUNCIL WOMEN

District 1—Mrs. Joel Wright, Alpine.

District 2—Mrs. T. D. Young, Roscoe.

District 3—Mrs. E. M. Blake, Lubbock.

District 4—Mrs. V. E. Shulze, San Angelo.

District 5—Mrs. J. L. Pridgen, San Antonio.

District 6—Mrs. P. H. Frenzet, Donna.

District 7—Mrs. John Crockett, Austin.

District 8—Mrs. E. H. Marek, Yoakum.

District 9—Mrs. J. O. Bartell, Conroe.

District 10—Mrs. E. C. Ferguson, Beaumont.

District 11—Mrs. Robt. Hodge, Athens.

District 12—Mrs. E. V. Powell, Waco.

District 13—Mrs. Walter Jackson, Ranger.

District 14—Mrs. S. M. Hill, Dallas.

District 15—Mrs. R. C. Cross, Texarkana.

The president asked for delegates to the National Meeting. Upon motion of Mrs. P. R. Denman, it was voted to empower the president to name delegates upon arrival at the National Meeting.

Mrs. Orville Egbert, El Paso, was nominated as a member of the George Plunkett Red Student Loan Fund Committee. Upon motion of Mrs. S. F. Harrington, it was voted to close nominations and elect Mrs. Egbert unanimously.

The Nominating Committee was elected, consisting of two board members and four members from the body, as follows: Mrs. S. C. Red, Jr., Houston, nominated by Mrs. R. C. Bellamy; Mrs. H. B. Allen, Brownwood, nominated by Mrs. S. C. Red, Jr.; Mrs. H. R. Dudgeon, Waco, nominated by Mrs. O. M. Marchman; Mrs. Klingensmith, Amarillo, nominated by Mrs. P. R. Denman; Mrs. H. Leslie Moore, Dallas, nominated by Mrs. Ramsay Moore; Mrs. L. P. Guttman, Corpus Christi, nominated by Mrs. S. F. Harrington. Upon motion of Mrs. S. H. Watson, it was voted to close nominations and elect unanimously those nominated.

Mrs. Denman reported for the Fourth Vice-President, in regard to the essay contest. A lively discussion ensued. Finally upon motion of Mrs. O. M. Marchman, it was voted to leave the advisability of the Essay Contest to the discretion of the Advisory Board.

In regard to a date for the Fall Executive Board meeting, Mrs. Thompson announced that the meeting would be held in Kerrville between the first and fifteenth of September.

Communications were read from Dr. H. F. Connally, President and Dr. Holman Taylor, Secretary, of the State Medical Association, in regard to our program for the year's work.

All officers and new county presidents were introduced.

There being no further business the meeting adjourned at 3:15 p. m.

MRS. MARK H. LATIMER,
Recording Secretary.

MEMBERSHIP

Woman's Auxiliary to the State Medical Association of Texas

MAY, 1944

The membership list which follows is compiled from names sent to the State Treasurer, by county auxiliaries, as this year's paid-up members.

The Councilor Districts of the Auxiliary are the same as those of the State Medical Association. By referring to page 150 of this number of the JOURNAL, which carries the list of Councilor Districts of the Association and the counties they contain, it may be ascertained in which Councilor District any particular county belongs.

FIRST OR EL PASO DISTRICT

Mrs. Joel Wright
Alpine
Council Woman

EL PASO COUNTY AUXILIARY†

Arminstead, Mrs. S. D., 4301 Trowbridge.
*Awe, Mrs. Chester D., 3422 Ocean Front.
*Bascom, Mrs. Compere, 3612½ Pershing Drive.
Barrett, Mrs. F. O., 2733 Gold.
Bennett, Mrs. J. T., 2611 Altura.
*Black, Mrs. A. P., 60807 Exeter, Bethesda, Md.
*Breck, Mrs. Louis W., Camp Swift, Bastrop, Texas.
*Britton, Mrs. Bioyce, Santa Ana, Cal.
Britton, Mrs. W. W., 2409 Montana.
Brown, Mrs. C. P., 2900 Federal.
Brunner, Mrs. George, 908 Winter.
Butler, Mrs. Arthur H., 221 Rand.
*Causey, Mrs. E. G. 1009 Park Road.
Craige, Mrs. Branch, 517 Corto.
Cummins, Mrs. E. J., 4011 Pershing.
*Curtis, Mrs. W. R., 1403 Preston, Austin, Texas.
Davis, Mrs. W. J., 1114 N. Copia.
Deady, Mrs. H. P., Country Club District.
Duncan, Mrs. E. A., 2018 N. Kansas.
Egbert, Mrs. Orville, 300 Federal.
*Epstein, Mrs. I. M., Camp Livingston, La.
*Evans, Mrs. F. G.
Gaddis, Mrs. R. L., 1321 E. Rio Grande.
Gaddy, Mrs. S. J., 112 Mesa.
Gallagher, Mrs. Paul, 1145 E. California.
*Gambrell, Mrs. Hal, 4208 Loma, Dallas, Texas.
*Goodloe, Mrs. B. L., 3200 Memphis.
*Goodwin, Mrs. Frank 925 Rim Road.
Gorman, Mrs. J. J., 3100 Federal.
Gray, Mrs. John B., 813 West Yandell.
*Green, Mrs. J. L., 3012 Silver.
Hardy, Mrs. J. A., 1405 Montana.
*Hart, Mrs. M. S., 2402 Elm, Cairo, Ill.
*Hatfield, Mrs. H. D., 1729 Berkley Road, Augusta, Ga.
Hendricks, Mrs. C. M., 3601 McKinley.
Holt, Mrs. Russell, 2735 Wheeling.
*Homan, Ralph, Mrs., 1501 Truxillo, Houston.
Homan, Mrs. R. B., Sr., 1837 Grandview.
Homan, Mrs. R. B., Jr., 3117 Copper.
Huffaker, Mrs. Hunter, 316 E. Rio Grande.
*Hughes, Mrs. R. P., Fort Sill, Okla.
Irvin, Mrs. E. H., 321 W. Rio Grande.
Jamieson, Mrs. W. R., 1015 Galloway.
Jenness, Mrs. B. F., 3418 Ft. Blvd.
*Jordan, Mrs. G. H., 1001 Oakland.
Jumper, Mrs. C. E., 1511 N. Virginia.
Keller, Mrs. N. H., 700 Cincinnati.
King, Mrs. Sam., 3325 Pershing.
Laws, Mrs. Jas. W., 701 N. St. Vrain.
Leigh, Mrs. Harry, 2619 Altura.
Liddel, Mrs. T. C., 2731 Richmond.
Long, Mrs. A. D., 1805 Elm.
Lynch, Mrs. K. D., 235 Pennsylvania.
Marshall, Mrs. A. G., 1307 W. Missouri.
Martin, Mrs. J. D., 3003 Louisville.
Mason, Mrs. C. H., 4430 Oxford
McCamant, Mrs. T. J., 4500 Trowbridge.
McChesney, Mrs. Paul, 401 Robinson Blvd.
McNeil, Mrs. Irving, 1917 N. Mesa.
Miller, Mrs. Felix, 5 Cumberland Circle.
Morrison, Mrs. J. E., 800 College.
*Multauf, Mrs. A. W., 935 Rim Road.
Murphy, Mrs. J. L., 2924 Copper.
Pangman, Mrs. J. W., 1216 Park Road.
*Peticolas, Mrs. J. D., 3705 Chester.
*Rawlings, Mrs. J. Mott, 4700 Hastings.
Rennick, Mrs. Sam, Hotel Cortez.
Rheinheimer, Mrs. E. W., 3124 Aurora.
Rigney, Mrs. Paul, 4600 Raynolds.
Rogde, Mrs. Jacob, Box 98, Clark Road.
Rogers, Mrs. E. B., 1601 Rio Grande.
Rogers, Mrs. H. Earl, 2518 Richmond.
Rogers, Mrs. Will P., 901 Montana.
Schuster, Mrs. Frank, 939 Rim Road.
Schuster, Mrs. Stephen, 1000 N. Mesa.
Shannon, Mrs. Hugh, 1307 Cincinnati.
Smith, Mrs. Leslie, 2827 Lebanon.
*Snidow, Mrs. E. A., Station Hospital, Camp Cook, La.
*Spearman, Mrs. M. D., 1124 Baltimore.
Spier, Mrs. Erich, 918 McKelligon.
Stevens, Mrs. B. F., 2001 N. Stanton.
*Stevenson, Mrs. W. H., 503 Cliff.
Stowe, Mrs. Jesson, 1104 Cincinnati.
Swope, Mrs. S. D., 1127 Montana.
Terrell, Mrs. Scurry, 2600 Richmond.
Thompson, Mrs. Robert F., 1227 Rim Road.
Treece, Mrs. A. A., Fabens.
Turner, Mrs. George, 3009 Silver.
Vance, Mrs. James, 1717 N. Mesa.
Vandevere, Mrs. W. E., 1919 N. Stanton.
Varner, Mrs. H. H., 3030 Wheeling.
Villareal, Mrs. Leopoldo, 512 Gregory Way.
Von Almen, Mrs. S. G., Upper Valley.
Wolcox, Mrs. L. E., 4779 Cumberland.

†Address is El Paso unless otherwise stated.
*Members on elave.

SECOND OR BIG SPRING DISTRICT

Mrs. T. D. Young
Roscoe
Council Woman

ECTOR-MIDLAND-MARTIN-HOWARD-GLASSCOCK-ANDREWS COUNTIES AUXILIARY

Barganier, Mrs. J. H., 421 W. 18th St., Odessa.
Bennett, Mrs. Marion H., Big Spring.
Bobo, Mrs. Thos. C., Midland.
Chapple, Mrs. James H., Midland.
Cowper, Mrs. B. G., Big Spring.
Fulcher, Mrs. O. A., 1120 N. Golder, Odessa.
Headlee. Mrs. Emmet, 421 N. Lincoln, Odessa.
Hogan, Mrs. J. E., 221 E. Park St., Big Spring.
Leggett, Mrs. Lloyd W., Midland.
Malone, Mrs. P. W., 503 E. Park, Big Spring.
True, Mrs. Geo. S., 501 E. Park, Big Spring.
Van Gieson, Mrs. E. J., Big Spring.
Whitehouse, Mrs. Wm. G., Midland.
Woodall, Mrs. J. B., Big Spring.

THIRD OR PANHANDLE DISTRICT

Mrs. E. M. Blake
Lubbock
Council Woman

CHILDRESS-COLLINGSWORTH-HALL COUNTIES AUXILIARY

Clark, Mrs. C. E., Memphis.
Goodall, Mrs. O. R., Memphis.
Jernigan, Mrs. J. H., Childress.
Jeter, Mrs. Perry R., Childress.
Jones, Mrs. C. B., Wellington.
Jones, Mrs. E. W., Wellington.
Moss, Mrs. E. W., Wellington.
Odom, Mrs. J. A., Memphis.
Townsend, Mrs. S. H., Childress.
Wilson, Mrs. W., Memphis.
Wilson, Mrs. Henry, Memphis.

LUBBOCK-CROSBY COUNTIES AUXILIARY†

Barsh, Mrs. A. G., 2511 22nd St.
Blake, Mrs. Emerson M., (Sec-Treas.), 331 20th St.
*Clark, Mrs. Doyce McIntire, 2617 19th St.
Clark, Mrs. Vester Varden, 2617 19th St.
Cross, Mrs. Denzil D., 3001 20th St.
Dunn, Mrs. Samuel G., Levelland Road.
English, Mrs. Otis W., 2809 19th St.
Ewing, Mrs. Mahon M., 2504 23rd St.
Fiel, Mrs. Chas. A., Jr., 3801 19th St.
Hand, Mrs. O. Robt., 3021 22nd St.
Hunt, Mrs. Ewell L., 2423 22nd St.
Hutchinson, Mrs. James T., 1519 Broadway.
Jenkins, Mrs. B. Arthur, 2124 30th St.
Key, Mrs. Olan, 2303 18th St.
Krueger, Mrs. Julius T., 2703 19th St.
Lattimore, Mrs. J. P., 1802 Ave. O.
Malone, Mrs. Frank B., 2435 21st St.
*Mast, Mrs. Henri, 1919 28th St.
Maxwell, Mrs. H. C., 2417 Broadway.
McCarty, Mrs. R. H., (Pres.), 1915 28th St.
Overton, Mrs. Marvin C., 2523 21st St.
Rollo, Mrs. James W., 1802 Ave. S.
Robertson, Mrs. Howard, 2223 Main St.
Stewart, Mrs. Allen T., 3120 21st St.
Stiles, Mrs. James H., 3002 22nd St.
Standefer, Mrs. Fred W., 3105 21st St.
Taylor, Mrs. Otis, Jr., (V. Pres.), 2706 24th St.

POTTER COUNTY AUXILIARY†

Churchill, Mrs T. P., 1309 Bellaire.
Fuller, Mrs. M. L., 1717 Madison.
Flamm, Mrs. Mattie B., 801 LaSalle.
Gist, Mrs. R. D., 2615 Hayden.
Hendrick, Mrs. J. W., 3009 Hughes.
Keys, Mrs. R., 2201 Hughes.
Klingensmith, Mrs. W. R., 2415 Lipscomb.
Marsalis. Mrs. D. S., 1502 Bowie.
Roach, Mrs. D., 1806 Harrison.
Streit, Mrs. A. J., 2413 Hayden.
Streit, Mrs. P. H., 2411 Hayden.
Vineyard, Mrs. R. L., 1801 Harrison.
White, Mrs. J. B., 2035 Ong.
Winsett, Mrs. A. E., 2208 Hughes.

†Address is Lubbock unless otherwise stated.
*Members on leave.

FOURTH OR SAN ANGELO DISTRICT

Mrs. V. E. Schulze
San Angelo
Council Woman

BROWN-COMANCHE-MILLS-SAN SABA COUNTIES AUXILIARY

Allen, Mrs. H. B., 1710 Vincent, Brownwood.
Allen, Mrs. W. L., 1018 La Monte, Brownwood.
Cadenhead, Mrs. E. F., 2401 Coggin Ave., Brownwood.
Campbell, Mrs. J. M., Goldthwaite.
Horn, Mrs. J. M. 1905 First, Brownwood.
Lobstein, Mrs. H. L., 1007 Coggin Ave., Brownwood.
Locker, Mrs. H. L., 3313 Austin, Ave., Brownwood.
McFarland, Mrs. J. R., 1312 Cottage, Brownwood.
Stevens, Mrs. J. J., Goldthwaite.
Terrell, Mrs. J. C., Stephenville.

RUNNELS COUNTY AUXILIARY

Bailey, Mrs. C. F., Ballinger.
Dixon, Mrs. J. W., Winters.
Chandler, Mrs. O. H., Ballinger.
Jennings, Mrs. J. V., Ballinger.

TOM GREEN-EIGHT COUNTY AUXILIARY‡

Anderson, Mrs. W. D., 2213 Dallas.
Bunyard, Mrs. J. A., 1302 Mackenzie.
Carbrey, Mrs. T. F., Cactus Hotel.
Hixon, Mrs. J. S., 1316 Paseo de Vaca.
Horney, Mrs. Harlan, 1418 So. Madison.

†Address is Amarillo unless otherwise stated.
‡Address is San Angelo unless otherwise stated.

Hutchins, Mrs. F. Leon, 2202 Dallas.
Lewis, Mrs. Aubrey L., 119 East Beauregard.
McAnulty, Mrs. J. P., 1005 So. Park.
Nibling, Mrs. G. W., 203 West Twohig.
Rape, Mrs. J. Marvin, 1512 W. Harris.
Schulkey, Mrs. W. E., 1221 So. Madison Ave.
Schulze, Mrs. Victor, Christoval Road.
Smith, Mrs. Jerome, 1300 Paseo de Vaca.
Womack, Mrs. C. T., 209 N. Madison.

FIFTH OR SAN ANTONIO DISTRICT

Mrs. J. L. Pridgen
619 W. Mistletoe
San Antonio
Council Woman

BEXAR COUNTY AUXILIARY†

Adams, Mrs. S., 404 Bushnell Apts.
Alexander, Mrs. C. B., 2003 W. Magnolia.
Allen, Mrs. S. W., Plaza Hotel.
Allin, Mrs. F., 1539 Hicks.
*Allin, Mrs. Willis.
*Altgelt, Mrs. D. D.
Anderson, Mrs. J. L., 166 Elizabeth Blvd.
Applewhite, Mrs. S. C., 401 E. Park.
Arendt, Mrs. E. J. 625 Shook Ave.
Atkinson, Mrs. D. T., Huebner Road.
*Atmar, Mrs. R. C.
*Barbato, Mrs. L.
Barnett, Mrs. J. L., 223 Laurel Hts. Place.
Bates, Mrs. L. E., 215 Ewald.
Beach, Mrs. Asa, 129 E. Summit St.
Beck, Mrs. L. K., 1420 McCulloch.
Bell, Mrs. J. D., 148 Thoraine.
Berchelmann, Mrs. A., 901 W. Mistletoe.
Biggar, Mrs. J. H., 242 Rockwood.
*Bloom, Mrs. B.
Boccelato, Mrs. S. L., 923 W. Huisache.
Boehs, Mrs. C. J., 135 W. Hollywood.
*Bondurant, Mrs. W. W., 430 College Blvd.
*Bosshardt, Mrs. C. E.
Bosshardt, Mrs. C., 227 Claudia.
Bowen, Mrs. P. G., 331 W. Kings Highway.
Bowen, Mrs. R. E., 1849 W. Gramercy Pl.
*Bowen, Mrs. R. E., Jr., 2245 W. Magnolia.
*Boyd, Mrs. G. D.
Brown, Mrs. A. A., 719 Howard.
Burg, Mrs. E., 2167 W. Summit.
Burk, Mrs. W. E., 310 Donaldson.
Bush, Mrs. H. M., 1540 W. Huisache St.
*Butler, Mrs. T. B., 244 Belvedere.
Cade, Mrs. W. H., 111 Canterbury.
Cade, Mrs. C. C., 307 E. Park Ave.
Calder, Mrs. R., 223 E. Lullwood.
*Calvert, Mrs. H.
Carnahan, Mrs. R. G.
Cassity, Mrs. J. C., 325 W. Cloverleaf.
Cayo, Mrs. E. A., 303 Broadview Drive W.
Celaya, Mrs. H., 631 Ciruela.
Champion, Mrs. A. W., 135 W. Rosewood.
*Childers, Mrs. M. A. Jr.
Christian, Mrs. T. E., 450 Mary Louise Drive.
Clark, Mrs. A. F., 306 E. Craig.
*Clark, Mrs. A. F., Jr.
Cooper, Mrs. E., 119 E. Wildwood Drive.
*Cooper, Mrs. F. B.
*Cooper, Mrs. M. J., 206 Primera Drive.
Copeland, Mrs. J. B., 367 North Drive.
*Cowles, Mrs. A. G., 202 W. Kings Highway.
*Coyle, Mrs. E. W., 213 Grant.
Coyle, Mrs. J. E., 137 University.
*Crain, Mrs. C. E.
Crockett, Mrs. R. H., 1828 Sacramento.
Cunningham, Mrs. S. P., 116 W. Woodlawn.
Cutter, Mrs. I. T., 232 W. Lullwood.
Davis, Mrs. M., 945 W. Huisache.
Davis, Mrs. R., 636 E. Olmos Drive.
Davis, Mrs. Robert, 122 Gerald.
DeLeon, Mrs. J. J., 511 Club Drive.
DePew, Mrs. E. V., 115 E. Agarita.
Dittman, Mrs. C. H., 615 Ciruela.
Donop, Mrs. S. P., 402 Meredith Drive.
Dorbandt, Mrs. M., 104 E. Norwood.
Dreiss, Mrs. A. M., 319 Mission.
*Dufner, Mrs. Romie.
Dumas, Mrs. E. D., 418 W. French Place.
Engleke, Mrs. A., 205 Terrell Road.
*Fargo, Mrs. W. C., 146 Harrigan.
Fetzer, Mrs. W. J., 137 Seeling Blvd.
*Folbre, Mrs. T. W., 335 Garrity Road.
Forbes, Mrs. M. A., 200 Warwick.
Freeman, Mrs. F. M., Jr., Las Vegas, N. M.

†Address is San Antonio unless otherwise stated.
*Members on leave.

*French, Mrs. J. A., 316 Maverick.
Geyer, Mrs. G. H., 747 E. Ashby.
Giesecke, Mrs. A., 203 W. Myrtle.
*Giesecke, Mrs. C., 105 W. Rosewood
Gilbreath, Mrs. S. F., 1347 W. Fulton.
Giles, Mrs. R. G., 2227 W. Mistletoe.
*Gleckler, Mrs. J. D.
Glober, Mrs. R. A., 343 North Drive.
*Goeth, Mrs. C. F.
Goeth, Mrs. R. A., 125 E. Huisache.
Goode, Mrs. J. W., 134 Hermosa Drive.
Goodson, Mrs. T. N., Gunter Hotel.
Goodwin, Mrs. R. T., 124 Barilla.
*Gossett, Mrs. R. F.
Graves, Mrs. A., 222 Genesco.
Graves, Mrs. W. E., 804 Poplar.
Haggard, Mrs. C. H., 624 Lamont.
Haggard, Mrs. F. N., (Hon.), 615 E. Olmos.
Haile, Mrs. J. T., 912 W. Argarita.
Hairston, Mrs. J. T., 426 Donaldson.
*Hargis, Mrs. H.
Harris, Mrs. L. M., 625 McCulloch.
*Hartman, Mrs. A. W., Jr., 138 E. Elsmere.
Hartman, Mrs. H., 831 W. Lynwood.
*Heck, Mrs. W. H.
Heinen, Mrs. A., Seguin.
*Helfer, Mrs. L. M.
Herff, Mrs. A. F., 363 Terrell Road.
Herff, Mrs. F. P., 615 W. Ashby.
*Hill, Mrs. H.
Hill, Mrs. L., 131 Brittany Drive.
*Holshouser, Mrs. C. A., 226 W. Gramercy Drive.
Horton, Mrs. G. W., 226 Club Drive.
Hoskins, Mrs. H. R., 301 Pershing Ave.
*Hunt, Mrs. K. M.
Jackson, Mrs. L. B., 203 W. Mulberry.
Jackson, Mrs. R. S., 201 Mary Louise Dr.
Jackson, Mrs. L. W., 1530 W. Gramercy.
*Jensen, Mrs. A. M.
Jensen, Mrs. M. H., 1616 W. Huisache.
Johnson, Mrs. H. M., Jr., 130 W. Norwood.
*Johnson, Mrs. M. E.
Johnson, Mrs. W. J., 423 Donaldson.
Judkins, Mrs. O. H., 240 W. Summitt.
Kahn, Mrs. I. S., 128 Harrison.
*Keating, Mrs. P. M., 222 King William.
Kenney, Mrs. N. W., 222 E. Poplar.
*King, Mrs. A. C., 912 W. Agarita.
King, Mrs. W. A., 912 W. Agarita.
Kliefoth, Mrs. F. H., 316 Cloverleaf.
Kopecky, Mrs. J., 627 Lamont.
Kopecky, Mrs. L., 526 College.
*Kupper, Mrs. R. C.
Landers, Mrs. R. W., 281 E. Oakview.
Leap, Mrs. H. L., 241 King William.
Lee, Mrs. L. L., 270 E. Oakview.
*Lehman, Mrs. C. F., 336 Terrell Road.
Letteer, Mrs. C. R., 303 Natalen.
*Letteer, Mrs. R.
Leopold, Mrs. H. N., 200 Torcido.
*Livingston, Mrs. C. S.
Lochte, Mrs. E. R., 2001 W. Summitt.
*Luedemann, Mrs. W. S.
*Lyon, Mrs. E. F.
Manhoff, Miss Sarah, 818 W. Woodlawn.
*Magrish, Mrs. P.
*Martin, Mrs. F.
Martin, Mrs. O. O., 1136 Hammond.
Mason, Mrs. O., 254 Castano.
*Matthews, Mrs. J. L., Randolph Field.
*Maxwell, Mrs. E. A., 119 W. Rosewood.
Maxwell, Mrs. W. W., 932 W. Woodlawn.
McCamish, Mrs. E. W., 120 E. Magnolia.
McCurdy, Mrs. W. M., 602 Mandalay Dr. E.
McGehee, Mrs. C., 236 Quentin Drive.
McGehee, Mrs. J. S., 130 N. Norwood.
McIntosh, Mrs. J. A., 208 W. Woodlawn.
*McPeak, Mrs. E. M., 254 Cloverleaf.
Merrick, Mrs. E. H., 2150 W. Magnolia.
Milburn, Mrs. C. L., 331 W. Magnolia.
Milburn, Mrs. K. A., 347 Charles Road.
Mileau, Mrs. A., 514 Pershing Ave.
Miller, Mrs. J. B., 1811 E. Commerce.
Miller, Mrs. J. B., Jr., 117 Brittany.
Miller, Mrs. R. A., 308 Park Hill Drive.
Minsch, Mrs. Camelia, 275 Halcyon St.
Minter, Mrs. M. M., St. Anthony Hotel.
Moore, Mrs. J. M., 535 Donaldson.
Moore, Mrs. O. S., 1846 W. Magnolia.
*Moore, Mrs. S. F.
Moore, Mrs. T. E., 110 E. Craig.
Mueller, Mrs. E., 154 Barilla.
Muldoon, Mrs. W. E., 308 Park Drive.
Nesbit, Mrs. W. E., 221 W. Mistletoe.
Newhouse, Mrs. O. A., 325 Magnolia.
Nicholson, Mrs. J. R., 5609 N. New Braunfels.
Nixon, Mrs. J. W., 129 E. Gramercy.
Nixon, Mrs. P. I., 202 E. Courtland.
*Nisbet, Mrs. A. A.
Ogilvie, Mrs. H. H., 137 E. Elsmere.
Oldham, Mrs. J. P., 612 Goliad.
Oxford, Mrs J. W., Floresville.
Parsons, Mrs. J. C., 131 W. Ridgewood.
Partain, Mrs. R. A., 201 Morningside Dr.
Paschal, Mrs. F. L., 4103 Maverick St.
Paschal, Mrs. G., 411 Maverick St.
Passmore, Mrs. B. H., 416 Maverick St.
*Passmore, Mrs. G. G.
Pinson, Mrs. C. C., 910 Cambridge Oval.
Pipkin, Mrs. J. L., 511 Brackenridge.
Pomerantz, Mrs. A. (Assoc.), 268 E. Lullwood.
*Pomerantz, Mrs. R. B.
Poth, Mrs. D. O., 304 Charles Road.
Potthast, Mrs. O. J., 419 King William.
Pressly, Mrs. T. A., 408 Mary Louise Drive.
Pridgen, Mrs. J. L., 619 W. Mistletoe.
*Pyterek, Mrs. A. B.
Rabel, Mrs. J. E., 130 Lamont.
Ramsdell, Mrs. M. A., 412 Harrison.
Reily, Mrs. W. A., 365 Club Drive.
*Reinarz, Mrs. B. H.
Reveley, Mrs. H., 121 W. Nueva.
Rhea, Mrs. R. L., (Assoc.), 304 E. Courtland.
*Rhea, Mrs. Robert L., Jr., 239 Allensworth.
*Rise, Mrs. Lee, 343 W. Gramercy.
*Ritch, Mrs. Allen.
Roan, Mrs. O., 107 Geneseo.
Roberts, Mrs. R. A., 1553 W. Huisache.
Robertson, Mrs. W., 540 Lamont.
Rosenbrough, Mrs. F. H., 1040 W. Woodlawn.
Rosenzweig, Mrs. M. M., 104 Ridgewood.
Ross, Mrs. Lloyd I., 122 Canterbury.
Ross, Mrs. R. R., 614 E. Olmos.
*Russ, Mrs. S. E.
Russ, Mrs. W. B., 1301 Belkamp
Russell, Mrs. D. A., 600 Patterson.
*Saegert, Mrs. A. H.
Sample, Mrs. R. O., 207 Park Lane.
Schattenberg, Mrs. H. J., 210 Eleanor.
*Schwartzberg, Mrs. Sam.
Scott, Mrs. R. E., 315 Cloverleaf.
Scull, Mrs. C. E., 115 Paseo Encinal.
Severance, Mrs. A. O., 151 Harrison.
Sharp, Mrs. T. H., 126 Park Hill Drive.
Shaver, Mrs. P. J. (Assoc.), 141 Club Dr.
Shepherd, Mrs. W. F., 1401 Highland Blvd.
Shipman, Mrs. E. D., 551 Cincinnati.
Skinner, Mrs. I. C., 418 W. Russell Place.
Sorell, Mrs. Frank W., 301 Luther Drive.
*Stansel, Mrs. Paul.
Stieler, Mrs. Albert, 315 Club Drive.
*Steinberg, Mrs. F. W., 237 Castano.
Steed, Mrs. Frank, 433 Mary Louise Drive.
Steele, Mrs. J. S. (Assoc.), 126 W. Woodlawn.
Stout, Mrs. B. F., 110 W. Lynwood.
Stuck, Mrs. W. G., 312 Cardinal.
Sturm, Mrs. C. E., State Hospital
Sugg, Mrs. W. R., 218 Morningside Drive.
Sweet, Mrs. Horace, 233 W. Summit.
*Swinny, Mrs. Boen.
Sykes, Mrs. E. M., 201 Charles Road.
Taylor, Mrs. C. W., 276 W. Mandalay Drive.
Taylor, Mrs. S. H., 343 W. Hollywood.
Tennison, Mrs. C. W., 221 Primrose.
*Thomas, Mrs. R. P.
Timmins, Mrs. O. H., 928 W. Agarita.
Todd, Mrs. D. A., 305 Thelma Drive.
Turnbull, Mrs. E. (Assoc.), 530 Geneseo.
Venable, Mrs. C. S., 154 Park Hill Drive.
Venable, Mrs. J. M., 139 Park Hill Drive.
Walker, Mrs. C. E., Jr. (Assoc.), 2450 E. Houston.
Walsh, Mrs. F. C., Hunt.
*Walthall, Mrs. W.
Watts, Mrs. J. A., 433 W. Woodlawn.
Weatherford, Mrs. E. W., 271 E. Lullwood.
Weatherford, Mrs. F. W., (Assoc.), 410 W. Lynwood.
Weinfield, Mrs. L. M., 114 Natalen.
*Weiss, Mrs. V. J.
Wessels, Mrs. A., 130 Oakmont Court.
West, Mrs. A., Jr., (Assoc.), Vance Jackson Rd.
Whitacre, Mrs. Stanley, 228 Alamosa.
Williams, Mrs. V. H., 112 Cloverleaf.
Winters, Mrs. J. W., 423 Dickman, Ft. Sam Houston.
Wolf, Mrs. W. M., 415 W. Ashby.
*Worsham, Mrs. J. W.
Wright, Mrs. R. (Assoc.), New Braunfels.
*Wyatt, Mrs. B. W.
Wyneken, Mrs. H. O., 1105 W. French Place.

KERR-KENDALL-GILLESPIE-BANDERA COUNTIES AUXILIARY

Black, Mrs. A. J., Kerrville.
Brewer, Mrs. F. B., Legion.
Cassidy, Mrs. W. A., Legion.
Domingues, Mrs. P. J., Kerrville.
Feller, Mrs. Lorence, Fredericksburg.
Gaines, Mrs. J. E., Legion.
Gallatin, Mrs. H. H., Kerrville.
Green, Mrs. Mara, Kerrville.
Gregg, Mrs. W. E., Kerrville.
Herrick, Mrs. J. C., Kerrville.
Hoggett, Mrs. Pierce, Kerrville.
Jackson, Mrs. J. D., Kerrville.
Jones, Mrs. C. C., Comfort.
Keidel, Mrs. Victor, Fredericksburg.
Keyser, Mrs. Lester, Fredericksburg.
Knapp, Mrs. D. R., Kerrville.
Meador, Mrs., Kerrville.
McClellan, Mrs. C. S., Kerrville.
Peden, Miss Adah, Fredericksburg.
Perry, Mrs. J. Hardin, Dallas.
Pfeiffer, Mrs. H. G., Fredericksburg.
Phillips, Mrs. C. M., Fredericksburg.
Reid, Mrs. H. P., Kerrville.
Secor, Mrs. Wm. L., Hunt.
Spier, Mrs. C. H., Legion.
Swayze, Mrs. Henry, Kerrville.
Thompson, Mrs. Sam E., Kerrville.
Williamson, Mrs. A. B., Fredericksburg.

SIXTH OR CORPUS CHRISTI DISTRICT

Mrs. P. H. Frenzel
Donna
Council Woman

HIDALGO-STARR COUNTIES AUXILIARY

Caldeira, Mrs. A. D., 541 Texas, Mercedes.
Frenzel, Mrs. Paul H., 400 S. 5th, Donna.
Glass, Mrs. T. W., 720 Texas, Weslaco.
Hamme, Mrs. Curtis J., Edinburg.
Hamme, Mrs. Ralph E., Edinburg.
Harrison, Mrs. J. G., 1209 Maple, McAllen.
Hatfield, Mrs. Walter H., 1205 Chicago, McAllen .
Hyder, Mrs. D. C., Donna.
Ice, Mrs. Noel C., 1201 Nyssa, McAllen.
Lawler, Mrs. Marion R., 1514 Missouri, Mercedes.
May, Mrs. Joe W., Edinburg.
Moore, Mrs. L. H., 703 N. 9th, McAllen.
Osborn, Mrs. Alfred S., 617 N. 9th St., McAllen.
Pence, Mrs. R. W., San Juan.
Reed, Mrs. Earl, San Juan.
Smith, Mrs. E. G., 519 Missouri, Mercedes.
Southwick, Mrs. Lloyd M., Edinburg.
Webb, Mrs. J. G., 237 Missouri, Mercedes.
Whigham, Mrs. Herschel E., 1305 Nyssa, McAllen.
Whigham, Mrs. W. E., 719 N. 8th St., McAllen.

NUECES COUNTY AUXILIARY†

Barnard, Mrs. W. C., 3209 Up River Rd.
Blair, Mrs. J. V., Woodlawn Addition.
Carter, Mrs. N. D., 615 Del Mar.
Collins, Mrs. C. B., 338 Louise Drive.
Crain, Mrs. C. P., 714 Craig.
Danford, Mrs. E. A., 230 Indiana.
Edgerton, Mrs. G. W., 3005 Lawnview.
Edwards, Mrs. T. W., 329 Southern.
Ellis, Mrs. F. A.
Gill, Mrs. King.
Grossman, Mrs. Dave.
Grossman, Mrs. Saul, 1311 Morgan.
Guttman, Mrs. L. P., 3418 Ocean Drive.
Heaney, Mrs. H. G.
Janssen, Mrs. L. W. O., 614 Furman.
Kemp, Mrs. K. J., 505 Naples.
Koepsel, Mrs. Orlando.
Marler, Mrs. O. E., 237 Norton.
Martin, Mrs. S. B., 128 Del Mar.
Meader, Mrs. C. N., 3517 Bluebonnet.
Moller, Mrs. G. T., 335 Laurel Drive.
Moody, Mrs. Foy.
Morgan, Mrs. C. G., 156 Santa Barbara.
North, Mrs. A., 1515 Ocean Drive.
O'Byrne, Mrs. G. T., 1227 3rd St.
Pilcher, Mrs. J. F., 323 Louise Drive.
St. John, Mrs. R. V., 225 Indiana.
Sharp, Mrs. James.
Sloan, Mrs. J. J.
Smith, Mrs. Y. C., 1113 Ocean Drive.
Stewart, Mrs. C. D., 114 E. Vanderbilt Dr.
Swearingen, Mrs. Robert.
Tally, Mrs. O. H., 1605 Stillman.
Triplett, Mrs. Wm.
White, Mrs. H. A., 412 King.
Williamson, Mrs. C. M., 703 Southern.

†Address is Corpus Christi unless otherwise stated.

MEMBERS-AT-LARGE, FIFTH AND SIXTH DISTRICTS

Otken, Mrs. C. H., Falfurrias.
Rodriguez, Mrs. Simon, 1405 So. Main St., Del Rio.
LaForge, Mrs. H., Uvalde.
Hinman, Mrs. A. J. H., New Braunfels.
Goodnight, Mrs. J. E., Pearsall.
Poth, Mrs. W. A., Seguin.
Cunningham, Mrs. G. B., Uvalde.
Davis, Mrs. Hugh, Seguin.
Lindley, Mrs. C. D., Carrizo Springs.
Crossley, Mrs. S. W., Del Rio.
Wilhite, Mrs. Geo. W., Gonzales.
Kind, Mrs. S. A., Karnes City.
Butler, Mrs. J. O., Bandera.
Bergfeld, Mrs. A. W. C., New Braunfels.
Lightsey, Mrs. J. N. Cotulla.
Heinen, Mrs. Allen, Seguin.
Pickett, Mrs. E. B., Carrizo Springs.
Wright, Mrs. Rennie, New Braunfels.
Utterback, Mrs. A. R., Bracketsville.
Woods, Mrs. G. S., Devine.
Ware, Mrs. T. P., Poteet.
Williamson, Mrs. J. D., Castroville.
Wiedeman, Mrs. J. E., Junction.
Meredith, Mrs. Wm. P., Del Rio.
Beall, Mrs. J. E., Pearsall.
Archer, Mrs. C. W., Floresville.
Oxford, Mrs. J. W., Floresville.
Oxford, Mrs. Marvin B., Floresville.
Frueholz, Dr. Bertha, New Braunfels.
Tiner, Mrs. E. L., Crystal City.
Kent, Mrs. C. M., Kenedy.
Jones, Mrs. A. C., Kingsville.
Glover, Mrs. G. E., Refugio.
Duran, Mrs. A., Victoria.
Gaston, Mrs. Earl, Falfurrias.
Badillo, Mrs. Jesus Chapa, Laredo.
Breeden, Mrs. Roy F., Brownsville.
Montague, Mrs. L. J., Edinburg.
LaMotte, Mrs. T. J., Harlingen.
Andrews, Mrs. T. P., Brownsville.
Garcia, Mrs. O., McAllen.
Schalenben, Mrs. H. C., Mission.
North, Mrs. N. T., Falfurrias.

SEVENTH OR AUSTIN DISTRICT

Mrs. John Crockett
1105 Clair, Austin
Council Woman

CALDWELL COUNTY AUXILIARY

DuBoise, Mrs. Otho K., Lockhart.
Nichols, Mrs. Clay, Luling.
Pitts, Mrs. Minor W., Luling.
O'Banion, Mrs. John T., Luling.
Ross, Mrs. Abner A., Lockhart.
Watkins, Mrs. Pruett, Luling.

LAMPASAS-BURNET-LLANO COUNTIES AUXILIARY

Shepperd, Mrs. Joe A., Burnet.
Vaughn, Mrs. T. D., Bertram.

TRAVIS COUNTY AUXILIARY†

Auler, Mrs. Hugo, 1408 Wathen.
Bailey, Mrs. Chas., 2201 Bridle Path
Black, Mrs. W. B., 401 W. 32nd.
Blaustone, Mrs. H. H., 3110 West Ave.
Castner, Mrs. C. W., 2106 Newfield Lane.
Coleman, Mrs. J. M., 2600 Bridle Path.
Cooper, Mrs. R. A., 1411 Newfield Lane.
Cox, Mrs. Geo. W., 1512 Forest Trail.
Crockett, Mrs. John, 1105 Clair.
Cleveland, Mrs. J. W., 1101 Eason.
Davidson, Mrs. H. T., 4419 Sinclair.
Davis, Mrs. W. A., 2408 Vista Lane.
Eckhardt, Mrs. James, 810 Avondale Rd.
Edens, Mrs. Lee, 2814 San Pedro.
Gambrell, Mrs. W. M., 2101 Rio Grande.
Gilbert, Mrs. Joe, 1402 West Ave.
Granberry, Mrs. H. R., 912 W. 6th.
Helm, Mrs. Fred, 1626 Palma Plaza.
*Hilgartner, Mrs. H. L., 2808 Bowman Rd.
Holland, Mrs. L. F., 505 W. 13th.
Houston, Mrs. W. R., 1404 W. 13th.
Howze, Mrs. J. E., 308 W. 12th.
Hudson, Mrs. S. E, 706 San Antonio.
Jackson, Mrs. N. R., 1006 Gaston Ave.
Jackson, Mrs. J. W., 1609 Northwood Rd.
Key, Mrs. Sam, 2314 Woodlawn.
Klotz, Mrs. H. L., 2200 Griswold Lane.
Kreisle, Mrs. M. F., 811 W. 31st.
Krueger, Mrs. E. 310 E. 9th.
Lippman, Mrs. Otto, 1801 Alameda Dr.
McCrummen, Mrs. T. D., 2300 Windsor.
Miears, Mrs. C. H., 4801 Shoalwood.
Moore, Mrs. C. F., 1301 Norwalk Lane.
Morris, Mrs. T. N., 1403 Kent Lane.
Murray, Mrs. R. V., 408 W. 32nd.
Neighbors, Mrs. A. H., 1803 West Ave.
Newman, Mrs H. W., 2710 San Pedro.
Nichols, Mrs. J. R., 800 Rio Grande.
Perkins, Mrs. Mary, 807 Leonard.
Richardson, Mrs. Dalton, 1111 W. 11th.
Robison, Mrs. J. T., 1109 Gaston.
Schiller, Mrs. N. L., 1606 Preston.
Smith, Mrs. H. E., 1508 W. 30th.
Standifer, Mrs. C. H., 2503 McCallum.
Suehs, Mrs. P. E., 600 Bellevue Place.
Terry, Mrs. A. A., 2000 Parkway.
Thomas, Mrs. J. C., 3 Niles Rd.
Thompson, Mrs. Burch, 2104 Sabine.
Thornhill, Mrs. G. F., 1603 Pease Rd.
Watt, Mrs. Will, 1502 Marshall Lane.
White, Mrs. Forest, 2202 Winsted Lane.
Williams, Mrs. Harris, 2505 McCallum.
Wilson, Mrs. R. T., 1511 Murray Lane.
Woolsey, Mrs. S. A., 509 W. 12th.

†Address is Austin unless otherwise stated.
*Members on leave.

EIGHTH OR DeWITT DISTRICT

Mrs. E. H. Marek
Yoakum
Council Woman

DeWITT-LAVACA COUNTIES AUXILIARY

Blackwell, Mrs. F. D., Hochheim.
Boyle, Mrs. J. W., Shiner.
Bohman, Mrs. A. J., Cuero.
Brown, Mrs. H. H., Jr., Yoakum.
Brown, Mrs. H. H., Sr., Yoakum.
Burns, Mrs. Helen, Cuero.
Burns, Mrs. J. W., Cuero.
Burns, Mrs. J. Gillette, Cuero.
Dobbs, Mrs. J. C., Cuero.
Douthit, Mrs. W. E., Cuero.
Duckworth, Mrs. M. G., Cuero.
Dufner, Mrs. C. T., Hallettsville.
Gray, Mrs. J. D., Yoakum.
Jaeggli, Mrs. Sam J., Moulton.
King, Mrs. G. A., Cuero.
Kopecky, Mrs. C. L., Yoakum.
Marek, Mrs. E. H., Yoakum.
Milner, Mrs. R. M., Yoakum.
Nowierski, Mrs. Leon, Yorktown.
Pulkrabek, Mrs. E. J., Yoakum.
Renger, Mrs. Harvey, Hallettsville.
Renger, Mrs. Paul, Sr., Hallettsville.
Richter, Mrs. S. L. B., Yoakum.
Strieder, Mrs. H. J., Moulton.
Wagner, Mrs. F. M., Shiner.

WHARTON-JACKSON-MATAGORDA-FORT BEND COUNTIES AUXILIARY

Bauknight, Mrs. J. M., Ganado.
Black, Mrs. V., Wharton.
Blair, Mrs. R. K., Wharton.
Blair, Mrs. W. M., Wharton.
Blasingame, Mrs. F. J. L., Wharton.
*Giddings, Mrs. H. D., West Coast.
Johnson, Mrs. R. G., New Gulf.
Kuykendall, Mrs. H. D., Sugarland.
Neal, Mrs. T. V., Wharton.
Nichols, Mrs. C. V., Richmond.
*Outlar, Mrs. B., West Coast.
Reeves, Mrs. H. V., El Campo.
Roche, Mrs. B. F., Bay City.
Rugeley, Mrs. F. R., Wharton.
Schulze, Mrs. G., El Campo.
Shoultz, Mrs. C. A., Bay City.
Simons, Mrs. B., Bay City.
Simons, Mrs. J. W., New Gulf.
Thiltgen, Mrs. W. S., El Campo.
Wagner, Mrs. J. R., Palacios.
Weinheimar, Mrs. E. A., El Campo.

NINTH OR SOUTHERN DISTRICT

Mrs. J. O. Bartell
Conroe
Council Woman

AUSTIN-WALLER COUNTIES AUXILIARY

Brown, Mrs. W. T., Wallis.
Gordon, Mrs. V., Sealy.
Hover, Mrs. F. W., Sealy.
Neely, Mrs. J. A., Bellville.
Roensch, Mrs. H. E., Bellville.
Steck, Mrs. O. E., Bellville.
Schmidt, Mrs. R. J., New Ulm.
Walker, Mrs. S. C., Hempstead.

GALVESTON COUNTY AUXILIARY†

Aves, Mrs. Fred, Dickinson.
Brindley, Mrs. Paul, 4306 Sherman Blvd.
Cooke, Mrs. Willard, 4510 Caduceus.

†Address is Galveston unless otherwise stated.
*Members on leave.

Decherd, Mrs. George M., 4023 N½ St.
Eggers, Mrs. G. W. N., 5625 Caduceus.
Fisher, Mrs. William C., Jr., 3214 Ave. P.
Gammon, Mrs. William, 63 Cedar Lawn.
Garbade, Mrs. F. A., 4515 Avenue N.
Gregory, Mrs. Raymond, 1410 24th St.
Harris, Mrs. L. R., 702 Market.
Harris, Mrs. Sarah, 1428 Broadway.
Harris, Mrs. Titus, 2723 Broadway.
Jarrell, Mrs. Norman, Texas City.
Johnson, Mrs. Jesse B., 5627 Sherman Blvd.
Jinkins, Mrs. J. L., 3121 Ave. P.
Jinkins, Mrs. W. J., 2827 Ave. O.
Klatt, Mrs. Emil H., 1605 Tremont.
Kleberg, Mrs. Walter, 2221 35th St.
Lee, Mrs. George T., 4600 Caduceus.
Lefeber, Mrs. John, 409 14th St.
McGivney, Mrs. John, 5005 Crockett.
McLarty, Mrs. E. S., Buccaneer Hotel.
Magliolo, Mrs. J. C., Dickinson.
Mares, Mrs. C. F., 4802 Denver.
Marr, Mrs. William, 4602 Ave. O½.
Otto, Mrs. John L., 2410 Ave. P.
Perlman, Mrs. Leo J., 501 7th St.
Peters, Mrs. Leo J., 915 17th Ave. North, Texas City.
Potter, Mrs. William B., 717 Broadway.
Randall, Mrs. Edward, Sr., 2004 Broadway.
Randall, Mrs. Edward, Jr., 3502 Ave. P.
Ritchie, Mrs. E. B., 1702 Ball.
Robinson, Mrs. H. Reid, 3420 Ave. O.
Ruskin, Mrs. Arthur, 1615 Ave. E.
Schmidt, Mrs. H. A., Texas City.
Schwab, Mrs. Ed. H., 2 Cedar Lawn.
Sharp, Mrs. William B., 1724 Blvd.
Singleton, Mrs. A. O., 1602 Broadway.
Slocum, Mrs. Harvey C., 1128 Blvd.
Snodgrass, Mrs. S. R., 1217 Market.
Stone, Mrs. Charles T., 11 Cedar Lawn.
Sykes, Mrs. Clarence S., 4628 Sherman Blvd.
Thompson, Mrs. Ed. R., 1508 Broadway.
Twidwell, Mrs. Leonard, Texas City.
Wallace, Mrs. Dick P., 2525 Broadway.
Weisz, Mrs. Stephen, 1002 Broadway.

HARRIS COUNTY AUXILIARY†

*Adam, Mrs. Geo. F., 3225 Binz.
Adams, Mrs. Granville, 1932 Dryden Rd.
Alexander, Mrs. H. L., 3210 Parkwood.
*Alexander, Mrs. J. C.
*Andrews, Mrs. Tom A.
Armentrout, Mrs. Coral R., 3229 Calumet.
Arnold, Mrs. Enga M., 2536 Prospect.
Ashmore, Mrs. C. M., 2305 Watts.
Austraw, Mrs. H. H., 2224 Dorrington.
Aves, Mrs. C. M., 1549 South Blvd.
Aydam, Mrs. Chas. W., 307 W. Pierce.
Baird, Mrs. V. C., 3701 Del Monte.
*Barkley, Mrs. Howard T.
Barnes, Mrs. Frank L., 10 Chelsea Place.
Barnes, Mrs. J. Peyton, 3651 Olympia.
Barrett, Mrs. John H., 1841 Palm.
Bartell, Mrs. Jack, Conroe.
Becker, Mrs. Arthur, Brenham.
Bell, Mrs. J. E., 3344 Charleston.
*Bell, Mrs. William E., 1933 Norfolk.
Bennett, Mrs. W. H., Humble.
Berry, Mrs. C. R., 3202 Oakmont.
Bertner, Mrs. E. W., Rice Hotel.
Best, Mrs. Paul W., Warwick Hotel.
*Billups, Mrs. J. T., 2302 Southmore.
*Blair, Mrs. Lyman C., 3406 Georgetown.
*Bloom, Mrs. Fred A.
Bloxsom, Mrs. Allan Penny, 2240 Chilton Road.
*Blundell, Mrs. J. Reece.
Bonham, Mrs. R. F., 3419 Wickersham.
Bost, Mrs. J. R., 2941 Chevy Chase.
*Bourdon, Mrs. Lynn L., 2315 Watts.
Bowen, Mrs. Ralph 3509 Montrose.
Bowen, Mrs. Shirley, 5000 Montrose.
Boyd, Mrs. A. N., 3117 Avalon.
Braden, Mrs. A. H., 2351 Kelvin.
*Bradford, Mrs. Keith F.
*Brady, Mrs. R. J.
*Brannon, Mrs. Jack G.
Bressler, Mrs. J. L., 2346 Tangley.
Brohn, Mrs. Alford J., 103 Morris.
*Brown, Mrs. A., 710 Pacific.
*Brown, Mrs. John W.
Bruder, Mrs. Wood H., 245 East 18th St.
*Bruhl, Mrs. Charles K., 2607 North Blvd.
Bryan, Mrs. W. G., 4820 San Jacinto.
Bukowski, Mrs. Lucian M., 2203 Dunraven.
Burge, Mrs. Curtis, 2214 N. Blvd.
Burke, Mrs. Thomas W., 3402 Wickersham.
*Burr, Mrs. Harry B., 6407 Peerless.
Calhoun, Mrs. C. Alsworth, 2152 Pelham.
*Cambell, Mrs. W. C.
Caplowitz, Mrs. H., 2102 Tangley.
*Carrico, Mrs. Carl C.
Chunn, Mrs. E. K., 2433 Glenhaven.
*Clapp, Mrs. J. Alston.
Clarke, Mrs. Herndon H., 2015 Dryden.
Clarke, Mrs. Jared E., 2124 Inwood.
*Cohen, Mrs. Raymond.
Cole, Mrs. Frank, 3201 Amherst.
*Collette, Mrs. Allan.
Compere, Mrs. T. H., 2631 Fernwood.
*Cone, Mrs. Frank
*Connor, Mrs. W. Harris.
Coogle, Mrs. C. P., 2220 Maroneal.
Coole, Mrs. Walter A., 102 Portland.
Coop, Mrs. B. F., 1536 Heights.
Cope, Mrs. R. Lewis, 6605 Meadow Lawn.
Coulter, Mrs. W. W., 1705 Ewing.
Crigler, Mrs. Cecil M., 3617 Olympia.
Crocker, Mrs. Ed., 2906 Wichita.
*Cronin, Mrs. Thomas D., 2131 Maroneal.
Cruse, Mrs. P. R., 2440 Del Monte.
*Cummings, Mrs. Hatch W.
*Cunningham, Mrs. G. N., 2106 Colquitt.
*Curb, Mrs. Dolf.
*Cutler, Mrs. Hayden H.
*Dailey, Mrs. J. Emerson
Daniel, Mrs. Joe E., 4500 Rossmoyne.
Dargan, Mrs. J. L., 2008 Milford.
David, Mrs. S. D., 4003 Mt. Vernon.
*Davis, Mrs. C. Q.
Denman, Mrs. Peyton R., 1220 Southmore.
DeVore, Mrs. Neal M., 1971 W. McKinney.
Dickson, Mrs. J. Charles, 5310 Mandell.
Doak, Mrs, Edmond K., 2105 Dunstan.
*Doak, Mrs. N. P.
*Donovan, Mrs. Thomas J.
*Duggan, Mrs. LeRoy.
Durham, Mrs. Mylie E., 730 West 43rd St.
Durrance, Mrs. Fred Y., 2124 Albans.
Ehlers, Mrs. H. J., 2112 Brentwood.
*Eidman, Mrs. F. G., 1449 Lawson.
*Embree, Mrs. Elisha D., 1915 Branard.
Englehardt, Mrs. H. A., 2208 Southmore.
Ernest, Mrs. Frank, 4313 Rossmoyne.
*Estes, Mrs. Berthold, 3746 Darcus.
Farfel, Mrs. Bernard, 5102 Jackson.
*Faris, Mrs. Arthur M., 2033 Norfolk.
Feagin, Mrs. Horace C., 3806 Garrett.
Filippone, Mrs. John M., 623 Hawthorne.
Finney, Mrs. R. Milton, 3115 Rice.
Fisher, Mrs. Wilton M., 1818 W. Clay.
*Flynt, Mrs. Otis P.
*Foote, Mrs. Stephen A., 2610 Stanford.
Foster, Mrs. Joe B., 2020 W. Main.
Foster, Mrs. John H., Warwick Hotel.
Freundlich, Mrs. Thomas, 419 Avondale.
*Gandy, Mrs. D. Truett.
Gandy, Mrs. Joe R., 2104 Pine Valley.
Gantt, Mrs. Albert M., 2901 Telephone.
Gaston, Mrs. John Zell, 2210 Riverside.
Gates, Mrs. Chas. S., 3119 Avalon.
*Glen, Mrs. John K., 4412 Montrose.
Goar, Mrs. E. L., 3203 Huntington.
*Graves, Mrs. Ghent.
Graves, Mrs. M. L., 11 Shadowlawn.
Green, Mrs. C. C., 5328 Institute Lane.
Green, Mrs. Jas. A., 2512 Southmore.
Greenwood, Mrs. James, Jr., 3666 Chevy Chase.
Greenwood, Mrs. James, Sr., Rt. 3, Old Main St. Rd.
Greer, Mrs. Alvis E., 2121 Oakdale.
Greer, Mrs. Cecil, 7430 Harrisburg.
Griffey, Mrs. E. W., 2218 Troon Rd.
Griswold, Mrs. C. M., 2121 Brentwood.
Grunbaum, Mrs. F. V., 2335 Maroneal.
Guenther, Mrs. John C., P. O. Box 269, La Grange.
*Guthrie, Mrs. Thomas, 2514 Dryden.
Haden, Mrs. Henry C., 3704 Montrose.
Haley, Mrs. S. Willard, 1915 Temple.
*Hamilton, Mrs. Carlos R., 1220 Southmore.
*Hardy, Mrs. S. Baron, 1406 Vassar.
Harris, Mrs. C. P., 11 Chelsea.
Harris, Mrs. Fred, 2404 Inwood.
*Harris, Mrs. Herbert H.
*Harris, Mrs. J. Wade.
*Hauser, Mrs. A.
Hayes, Mrs. Herbert T., 3603 Overbrook.
*Heard, Mrs. J. Griffin.
*Henderson, Mrs. Donald G.
*Hild, Mrs. Jack.
*Hill, Mrs. Joel, Milam.
Hines, Mrs. Norman, 2322 Southgate.
Hodell, Mrs. Geo. R., 2501 Dryden.
Hodges, Mrs. J. Edward, 2815 Main.
Hoeflich, Mrs. C. W., 1603 McGowan.
Holland, Mrs. T. L., 3838 Olympia.
*Hollimon, Mrs. Jas. H., 4518 Dixie.
Holloran, Mrs. R. J., 1223 W. Gray.
*Hotchkiss, Mrs. D. H., Jr.
Howard, Mrs. A. Philo, 3608 Audubon.
Huffman, Mrs. M. M., 2215 North Blvd.
Hughes, Mrs. Fred M., 3604 University.
Iiams, Mrs. Frank J., 2346 North MacGregor.
Johnson, Mrs. Herman W., 4510 Caroline.
*Johnson, Mrs. R. Marion, 2506 Oakdale.
Johnson, Mrs. Seale, 3111 University.
Johnston, Mrs. Robert A., 7 Shadowlawn.
*Jones, Mrs. J. R.
Jorns, Mrs. C. Forest.
Karbach, Mrs. Nelson W., 3205 Del Monte.
Karnaky, Mrs. Karl J., 2511 Arbor.
*Kerr, Mrs. Denton, 1924 Braeswood.
Kincaid, Mrs. Harvey L., 2423 Dryden.
*Kirkham, Mrs. H. L. D.
*Kirkpatrick, Mrs. L. P.
*Klanke, Mrs. C. W.
*Knolle, Mrs. Guy E.
Kreimeyer, Mrs. James H., 4402 Fernwood.
Kyle, Mrs. J. Allen, 1702 Main.
Lancaster, Mrs. E. H., 2617 Riverside.
Lapat, Mrs. William, 2301 Maroneal.
*Larsen, Mrs. Reuben L.
Latimer, Mrs. Mark H., 1912 North Boulevard.
*Lawrence, Mrs. B. A.
Lechenger, Mrs. G. C., 4819 Caroline.
Ledbetter, Mrs. A. A., 3226 Reba.
Ledbetter, Mrs. Paul, 3508 Inwood.
Levy, Mrs. M. D., 5302 Institute Lane.
*Lewis, Mrs. Everett B., 1712 Banks.
Lewis, Mrs. L. R., Memorial Drive.
Liles, Mrs. Ralph, 4104 Caroline.
Lister, Mrs. S. M., 4209 Montrose.
Logue, Mrs. Lyle J., 3340 Del Monte.
*Lowe, Mrs. T. E.
Lucas, Mrs. J. B.
Lummis, Mrs. Fred R., 3921 Yoakum.
Madsen, Mrs. A. C., 5328 Calhoun.
Maresh, Mrs. Henry R., 2416 Riverside.
Maresh, Mrs. R. E., 1627 South Blvd.
Margraves, Mrs. R. D., 2428 Reba.
*Marshall, Mrs. Reagan M.
*Martin, Mrs. James R.
*Mayfield, Mrs. J. H.
McAllister, Mrs. F. E., 1215 Bartlett.
*McCulley, Mrs. J. Duncan, 2334 Tangley.
*McDaniel, Mrs. Shaw.
*McDeed, Mrs. W. G., 2111 Sunset.
*McFarling, Mrs. J. E., Humble.
McGhee, Mrs. F. O., 3 Shadowlawn.
McHenry, Mrs. R. K., 3660 Chevy Chase.
McIndoe, Mrs. Frank W., 2324 Dryden.
McMeans, Mrs. R. H., 2217 Pelham.
McMurrey, Mrs. Allen, 22 Briar Hollow.
McNeil, Mrs. A. S., 1502 Hyde Park.
*McReynolds, Mrs. I. S., 3617 Iverness.
*Melton, Mrs. W. Truett.
Messer, Mrs. J. N., 2918 Southmore.
*Meynier, Mrs. M. J., Jr.
Miller, Mrs. A. L., 1245 Yale.
Milliken, Mrs. Gibbs, 3120 South MacGregor.
Molloy, Mrs. James P., 2624 Prospect.
*Mood, Mrs. Geo. F.
Moore, Mrs. John T., 1708 Sunset.
Moursund, Mrs. W. H., 2113 Milford.
Myers, Mrs. Claude D., 2104 Pelham.
Nester, Mrs. Charles R., 3440 Oakdale.
Nolan, Mrs. Leonard, 1630 Holman.
*Ohlhausen, Mrs. S. G.
*Oliver, Mrs. J. Stanley, 7441 Walker.
Oliver, Mrs. J. T., 2001 Forest Hill.
Ollub, Mrs. Charles J., 2702 Barbee.
Orman, Mrs. McDonald, 2335 Glen Haven.
Overgaard, Mrs. A. P., 3901 Austin.
Owen, Mrs. A. George, 612 Hathaway.
Padesto, Mrs. Lewis P., 3709 Montrose.
*Page, Mrs. J. Herbert.
Parr, Mrs. L. H., 1510 McDuffie.
Parsons, Mrs. A. M., 6 West Lane.
Patrick, Mrs. Ralph C., 5055 Calhoun.
*Patterson, Mrs. J. L.
Peterson, Mrs. Henry A., 3919 Mount Vernon.
Peterson, Mrs. Carl A., Long Point Witt Road.
*Phelps, Mrs. Kenton.
Phillips, Mrs. John Roberts, 5806 Bayou Bend.
Pipkin, Mrs. R. W., Baytown.
*Pittman, Mrs. James E., 3220 Binz.
Pope, Mrs. A. E. C., Crosby.
Powell, Mrs. N. B., 3002 San Felipe.
Poyner, Mrs. Herbert F., 2248 Chilton.
Prince, Mrs. Homer E., 2125 Bolsover.
*Pugsley, Mrs. Cornelius.
Purdie, Mrs. Robert, 6816 Staffordshire.
Qualtrough, Mrs. Walter F., 28 Briar Hollow Lane.
Rader, Mrs. John F., 3751 Charleston.
Ramsay, Mrs. W. E., 2016 Alabama.
Raney, Mrs. Lovel W., 1846 Richmond.
Ray, Mrs. John Wyett, 3919 Palm.
Red, Mrs. W. S., Jr., 1936 Larchmont.
Reece, Mrs. Charles D., 2031 Banks.

†Address is Houston unless otherwise stated.
*Members on leave.

Renfrow, Mrs. W. Frank, 2410 Del Monte.
Robbins, Mrs. E. Freeman, 2916 Chevy Chase.
*Robertson, Mrs. R. C. L.
*Robinett, Mrs. James B., Jr., 3136 Oakdale.
Rohrer, Mrs. G. E., Jr., 1903 Sue Ross.
Ruiz, Mrs. John J., 4746 Pease.
*Rumph, Mrs. Q.
Rushing, Mrs. John B., 5519 Ardmore.
Russell, Mrs. Thomas G., 1525 Castle Court.
Sacco, Mrs. Allan C., 2314 MacGregor Way.
Salerno, Mrs. Joseph P., 1401 Vassar.
*Salinger, Mrs. A., 3420 Roseland.
Sanders, Mrs. Chas., 2204 Sunset Blvd.
*Sanderson, Mrs. T. A.
Scardino, Mrs. P. H., 4520 Rossmoyne.
Schilling, Mrs. John G., 2115 Arbor.
*Schultz, Mrs. Dan W.
*Scott, Mrs. Dan W., 2041 Claremont.
*Seale, Mrs. Everett.
Sinclair, Mrs. T. A., 1801 Heights.
Skogland, Mrs. John E., 2612 Palm.
Slataper, Mrs. F. J., 2001 Wentworth.
Smith, Mrs. B. F., 8 Chelsea.
*Smith, Mrs. Burt B.
Smith, Mrs. Edward T., 2702 Cason.
Speller, Mrs. J. B., 4701 Austin.
Smith, Mrs. J. Murray, 4361 Blodgett.
Spurlock, Mrs. G. H., 3240 Del Monte.
Stackhouse, Mrs. H., Jr., 2331 Dryden.
*Stalnaker, Mrs. Paul R., 5401 San Jacinto.
Stevenson, Mrs. W. M., Kay.
Stork, Mrs. W. J., 3801 Fannin.
Stough, Mrs. John T., 2210 Dryden.
Strashun, Mrs. M. F., Plaza Hotel.
Strassmann, Mrs. E. O., 2310 Binz.
Strozier, Mrs. W. M., 3249 Parkwood.
*Swetland, Mrs. D. R.
Talley, Mrs. A. F., 2128 Southmore.
Taylor, Mrs. M. J., 2610 Yoakum.
*Theriot, Mrs. J. Roy, Jr.
Thomas, Mrs. Chas., 4511 Rossmoyne.
Thorn, Mrs. S. W., 3140 Oakdale.
*Thorning, Mrs. W. B., Jr.
Thorning, Mrs. W. B., Sr., 3602 Graustark.
Toland, Mrs. Wm. A., 4501 Caroline.
Trible, Mrs. J. M., 2402 Calumet.
Truitt, Mrs. J. J., 2619 Grant.
Tucker, Mrs. J. Norris, 3609 Piping Rock.
Turner, Mrs. B. Weems, 2947 Inwood.
*Turner, Mrs. C. Gary.
Tusa, Mrs. Theo. S., 1624 Richmond.
Tuttle, Mrs. L. L. D., 3223 Inwood.
*Vanzant, Mrs. Thomas J.
*Vaughn, Mrs. Luther M.
Waldron, Mrs. George W., 3659 Inwood.
*Wall, Mrs. John.
Wallis, Mrs. Marshall, 2031 Sunset.
Warner, Mrs. Clyde M., 3256 Reba.
Warner, Mrs. Lucien M., 2912 Ella Lee Lane.
Weeks. Mrs. J. W., Rosenberg.
*Weil, Mrs. Sol B.
*Weisinger, Mrs. Ross.
Welsh, Mrs. Hugh C., 218 W. Main.
*Whitsitt, Mrs. J. J. 4824 LaBranch.
Wible, Mrs. D. J., 2112 Inwood.
Wigby, Mrs. Palmer E., 3731 Rise.
*Williford, Mrs. L. R.
*Wills, Mrs. Seward, 5327 Mandell.
*Wolf, Mrs. Ed Trowbridge.
Wooter, Mrs. John H., 2119 Pine Valley.
*York, Mrs. Byron B.
Young, Mrs. Carl B., 3325 Del Monte.
*Youngblood, Mrs. J. C., 3011 Ella Lee Lane.
Zarr, Mrs. Lynn, 3330 Del Monte.

WALKER-MADISON-TRINITY COUNTIES AUXILIARY†

Anderson, Mrs. E. W.
Angier, Mrs. E. L.
Barnes, Mrs. Luther.
Barnes, Mrs. Sam, Trinity.
Bush, Mrs. L. E.
Cole, Mrs. T. C.
Curtis, Mrs. M. E.
Garrett, Mrs. John C.
Goodrich, Mrs. W. A.
Heath, Mrs. Jesse, Madisonville.
Morris, Mrs. J. E., Madisonville.
Praytor, Mrs. M. E. (Assoc.).
Robertson, Mrs. Lexie.
*Thomason, Dr. Elizabeth C.
Thomason, Mrs. John W.
Thornton, Mrs. H. H., Trinity.
Veazy, Mrs. W. B.

†Address is Huntsville unless otherwise stated.
*Absent with husband in service.

MEMBERS-AT-LARGE, NINTH DISTRICT

Siptak, Mrs. J. E., Caldwell.
Roach, Mrs. T. S., Caldwell.
Stewart, Mrs. H. L., Navasota
Sanders, Mrs. G. C., Richards.
Holt, Mrs. W. M., Angleton.
McCary, Mrs. A. O., Freeport.
Miller, Mrs. R. C., Lake Jackson.
Olive, Mrs. Roy A., Livingston.
Grimes, Mrs. Ivison, Camden.
Reeves, Mrs. G. D., Freeport.
Merz, Mrs. Herbert, Alvin.
Montgomery, Mrs. J. S., Freeport.
Gardner, Mrs. T. S., Livingston.
Goodnight, Mrs. T. S., Caldwell.

WASHINGTON COUNTY AUXILIARY†

Becker, Mrs. Arthur, 606 W. 4th St.
Burnett, Mrs. M. D., 114 Sycamore St.
Burns, Mrs. R. B., Giddings.
Graber, Mrs. Fred, 409 W. Main St.
Hasskarl, Mrs. Robert, 1008 Day St.
Hairston, Mrs. T. C.
Heineke, Mrs. Gus, 1308 S. Austin St.
Knolle, Mrs. Roger, 801 S. Clinton St.
Kusch, Mrs. L., 511 Sycamore St.
Lenert, Mrs. R. H., 604 S. Market St.
Levin, Mrs. Gus, Fayetteville.
Lusk, Mrs. Hugh, 415 W. Main St.
Miller, Mrs. A. C.
Pazdral, Mrs. G. V., Carmine.
Schoenvogel, Mrs. O. F., 112 Mulberry St. Somerville.
Southern, Mrs. C. E.
Steinbach, Mrs. H. L., 1310 S. Market St.
Tottenham, Mrs. W. F., 704 E. Academy.
Toubin, Mrs. Sam, Germania St.
Zeiss, Mrs. George, 712 E. Academy St.

TENTH OR SOUTHEASTERN DISTRICT

Mrs. E. C. Ferguson
2201 Victoria, Beaumont
Council Woman

ANGELINA COUNTY AUXILIARY‡

Bledsoe, Mrs. R. B., 110 S. Raguet.
Burch, Mrs. Joe S., 514 Frank St.
Clements, Mrs. J. C., Frank Avenue.
Clements, Mrs. P. C., South First St.
Dale, Mrs. John R., Jr., Diboll.
Denman, Mrs. Lenwood, North First St.
Dillen, Mrs. O. W., 619 North Raguet.
Duren, Mrs. Norman, 422 Montrose.
Estep, Mrs. M. A., 715 Mantooth.
Childers, Mrs. D. M., 119 E. Denman.
Gibson, Mrs. Mitchell O., 602 North Second St.
Hawkins, Mrs. J. W., 1002 Turner.
Klein, Mrs. Jim, 1015 Idlewood Drive.
Peavy, Mrs. Jas. Everett, Raguet Avenue.
Sweatland, Mrs. A. E., 804 Frank Avenue.
Taylor, Mrs. Robt., 501 Jefferson.
Tinkle, Mrs. L. T., Houston Highway.
Wade, Mrs. J. H., 718 Frank Avenue.

HARDIN-TYLER COUNTIES AUXILIARY

Anderson, Mrs. W. W., Kountze.
Barclay, Mrs. Watt, Woodville.
Berwick, Mrs. D. A., Deweyville.
Cox, Mrs. W. E., Victoria.
Cruse, Mrs. J. B., Woodville.
Darby, Mrs. T. O., Sour Lake.
Harrison, Mrs. A. B., Woodville.
Mann, Mrs. J. S., Colmesneil.
Poshataske, Mrs. W. J.,, Silsbee.
Shivers, Mrs. J. F., Woodville.
Tate, Mrs. R. A., Kountze.

JEFFERSON COUNTY AUXILIARY

Alexander, Mrs. H. E., 2370 Harrison, Beaumont.
Allison, Mrs. Peel, Beaumont.
Autrey, Mrs. A. R., 3100 Fifth, Port Arthur.
Byram, Mrs. Dan, Port Arthur.
Beyt, Mrs. F. J., 3812 Lakeshore, Port Arthur.
Boring, Mrs. C. W., 3929 Third, Port Arthur.
Bybee, Mrs. W. A., 2425 Pecos, Beaumont.
Brown, Mrs. W. D., 2274 North, Beaumont.
Carter, Mrs. John H., 2475 Evalon, Beaumont.
Chambers, Mrs. B. F., 449 Fifth, Port Arthur.
Colby, Mrs. Fred, 2380 Hazel, Beaumont.
Covode, Mrs. W. M., 5037 Ninth, Port Arthur.
Curry, Mrs. D. E., Port Arthur.
East, Mrs. H. H., 2801 Fourth, Port Arthur.
English, Mrs. D. M., Calder Place, Beaumont.
Engledew, Mrs. R. H., Calder Place, Beaumont.
Ferguson, Mrs. E. C., 2201 Victoria, Beaumont.
Fett, Mrs. B. J., 3100 Sixth, Port Arthur.
Graber, Mrs. W. J., Beaumont.
Hart, Mrs. John, 2375 North, Beaumont.
Heare, Mrs. L. C., Beaumont.
Hendry, Mrs. C. H., 2494 Hazel, Port Arthur.
Kuhlman, Mrs. F. Y., 4211 Ashland, Port Arthur.
Kaufman, Mrs. H., Port Arthur.
Ledbetter, Mrs. L. H., Calder Place, Beaumont.
Lewis, Mrs. S. J., Calder Terrace, Beaumont.
Lightfoot, Mrs. W. A., 2340 North, Beaumont.
Lightfoot, Mrs. W. A.,
Lowenstein, Mrs. J. M., 1346 Proctor, Port Arthur.
Mann, Mrs. D. A., 2135 Victoria, Beaumont.
Nixson, Mrs. H. J., Hotel Beaumont, Beaumont.
Middleton, Mrs. W. C., 1675 Orange, Beaumont.
Newton, Mrs. W. A., 2690 McFaddin, Beaumont.
Pace, Mrs. B. F., Port Neches.
Painton, Mrs. Clifford, 3430 Seventh, Port Arthur.
Pecora, Mrs. T. L., 2351 Angelina, Beaumont.
Pruitt, Mrs. L. T., 1415 Calder, Beaumont.
Serafino, Mrs. L. C., Lucas Drive, Beaumont.
Smith, Mrs. John, Port Neches.
Smith, Mrs. W. A., Caldwood, Beaumont.
Stephenson, Mrs. G., Beaumont.
Shaddock, Mrs. C. B., Beaumont.
Stoltje, Mrs. Joe, 2700 Forrest, Beaumont.
Suehs, Mrs. M. E., 2245 Hazel, Beaumont.
Sutton, Mrs. F. W., 2634 North, Beaumont.
Solis, Mrs. G. B., Port Arthur.
Tatum, Mrs. W. T., 2180 Orange, Beaumont.
Tumbleson, Mrs. T. A., 2485 Calder, Beaumont.
Walker, Mrs. Taylor, Calder Place, Beaumont.
Ward, Mrs. E. C., Beaumont.
White, Mrs. C. M., 2455 Hazel, Beaumont.
White, Mrs. J. M., 4535 Sunken Court, Port Arthur.
Williford, Mrs. H. B., 2555 Hazel, Beaumont.
Wilson, Mrs. I. G., Beaumont.
Young, Mrs. L. T., 3748 Proctor, Port Arthur.

†Address is Brenham unless otherwise stated.
‡Adress is Lufkin unless otherwise stated.

LIBERTY-CHAMBERS COUNTIES AUXILIARY

Bellamy, Mrs. R. C., Daisetta.
Bevil, Mrs. Jack, Hull.
Black, Mrs. Roy C., Cleveland.
Bridges, Mrs. W. H., Dodge City.
Delaney, Mrs. A. L., Liberty.
Fahring, Mrs. G. H., Anahuac.
Fahring, Mrs. Lloyd, Anahuac.
Freeman, Mrs. E. J., El Campo.
Freeman, Miss Sue, El Campo.
Griffin, Mrs. Frank S., Alto.
Jordan, Mrs. B. L., Daisetta.
Richter, Mrs. E. R., Mt. Belvieu.
Shearer, Mrs. M. R., Dayton.
Sykes, Mrs. E. W., Anahuac.
Tadlock, Mrs. J. T., Dayton.
Trachel, Miss Ruth, Mt. Belvieu.

NACOGDOCHES COUNTY AUXILIARY†

Barham, Mrs. Geo., North St.
Beall, Mrs. J. Frank, Beall St.
Blackwell, Mrs. T. J., 209 North.
Blount, Mrs. Myrtle, Park St.
Campbell, Mrs. Geo. P., 726 North.
McKinney, Mrs. E. P., 138 Bailey.
Middlebrook, Mrs. Geo. F.
Nelson, Mrs. A. L., 721 North.
Neuville, Mrs. C. F., 1000 Raguet.
Payne, Mrs. C. M., Camp Worth.
Pennington, Mrs. T. J., 844 North.
Smith, Mrs. Clarence, 900 Mound.

†Address is Nacogdoches unless otherwise stated.

Tucker, Mrs. Felix R., S. Fredonia.
Tucker, Mrs. Hal, E. Austin.
Tucker, Mrs. Henry N., Heights Add.
Tucker, Mrs. S. B., Mound St.

ELEVENTH OR EASTERN DISTRICT

Mrs. Robert Hodge
Athens
Council Woman

CHEROKEE COUNTY AUXILIARY

Burnett, Mrs. E. W., State Hospital, Rusk.
Cobble, Mrs. T. H., Rusk.
Hall, Mrs. R. L., State Hospital, Rusk.
Lamb, Mrs. Marvin., 631 El Paso St., Jacksonville.
McDonald, Mrs. W. A., Alto.
McDougle, Mrs. J. B., 621 Neches St., Jacksonville.
Sory, Mrs. W. H., 534 East Rusk St., Jacksonville.
Travis, Mrs. J. M., 531 South Ragsdale St., Jacksonville.
Travis, Mrs. L. H., El Paso St., Jacksonville.
Travis, Mrs. R. T., 637 San Antonio St., Jacksonville.

HENDERSON COUNTY AUXILIARY†

Black, Mrs. W. T., 409 E. Corsicana.
Cockerell, Mrs. L. L., 309 W. Corsicana.
Easterling, Mrs. A. H., 611 E. Tyler.
Geddie, Mrs. N. D., 704 S. Palestine.
Henderson, Mrs. R. E., 506 E. College.
Hodge, Mrs. R. H., 710 E. Tyler.
Wallace, Mrs. B. C., 207 S. Palestine.
Webster, Mrs. J. K., 806 E. Corsicana.
Weekley, Mrs. C. M., 409 E. Corsicana.

SMITH COUNTY AUXILIARY‡

Bailey, Mrs. Wm., 405 Mockingbird Lane.
Bell, Mrs. C. G., 626 So. Bois D'Arc.
Brown, Mrs. Glen, 223 E. 2nd.
Brown, Mrs. Irving, 1221 So. Chilton.
Clawater, Mrs. E. W., 1517 So. Chilton.
Faust, Mrs. J. J., 305 E. 2nd.
Jarmon, Mrs. Thomas, Old Bullard Rd.
Marshall, Mrs. R. L., 905 Mockingbird Lane.
McDonald, Mrs. C. C., Highland Park.
Page, Mrs. Roy C., 1900 S. College.
Pope, Mrs. Irving, 423 Vine.
Thompson, Mrs. Orion, 318 West 3rd.
Rice, Mrs. E. D., 925 S. Chilton.
Windham, Mrs. L. B., 600 West Rusk.
Weldert, Mrs. Albert, 603 West Weldert.
Young, Mrs. C. B., 929 S. Confederate.

TWELFTH OR CENTRAL DISTRICT

Mrs. E. V. Powell
Waco
Council Woman

BELL COUNTY AUXILIARY§

Alsup, Mrs. A. H., 1216 N. 3rd St.
Anderson, Mrs. H. B., 613 W. Lamar
Bassel, Mrs. Paul, Belton.
Bradfield, Mrs. E. O., 804 N. 4th.
Brindley, Mrs. G. V., 600 W. Garfield.
Bunkley, Mrs. T. F., 1117 N. 9th.
Chermosky, Mrs. W. A., 707 N. 3rd St.
Crumpler, Mrs. P., 1105 S. 5th.
Curtis, Mrs. R. C., 1315 N. 7th St.
Curtis, Mrs. Raleigh, 1919 N. 7th St.
Gober, Mrs. O. B., 404 N. 9th St.
Gober, Mrs. O. F., 714 S. 3rd St.
Greenwood, Mrs. Joe, 815 N. 9th St.
Harlan, Mrs. R. K., 1217 N. 3rd St.
Howell, Mrs. H. W., 1307 N. 5th St.
Longmire, Mrs. V. M., 1309 N. 9th St.
Maxwell, Mrs. W. J., 1016 N. 9th St.
Moon, Mrs. A. E., 716 N. 13th St.
Phillips, Mrs. Charles, 606 N. 9th St.
Pittman, Mrs. J. W., Belton.
Pollok, Mrs. L. W., 618 N. 13th St.
Powell, Mrs. W. N., 1219 N. 9th St.
Ramey, Mrs. P. M., 1714 N. 7th.
Robinson, Mrs. J. E., R. F. D.
Rodarte, Mrs. J. G., 1011 N. 13th.
Scott, Mrs. A. C., Jr., 618 N. 9th St.
Sewell, Mrs. H. W., Belton.
Sewell, Mrs. J. G., Belton.
Sherwood, Mrs. M. W., 605 N. 9th.
Simpson, Mrs. Charles, 1312 N. 7th.
Speed, Mrs. Terrell, 1105 N. 13th.
Stevenson, Mrs. C. A., 1017 N. 13th St.
Stuart, Mrs. L. D., 1210 N. Main.
Talley, Mrs. L. R., 1203 N. 3rd St.
Wiedeman, Mrs. A. E., 1111 N. 2nd St.
Winston, Mrs. J. R., 304 W. French.
Wolf, Mrs. A. F., 318 N. Main.
Woodson, Mrs. Palmer, 605 W. Nugent.

BRAZOS-ROBERTSON COUNTIES AUXILIARY

Boguskie, Mrs. W. M., Hearne.
Cline, Mrs. W. B., Bryan.
Cummings, Mrs. H. W., Hearne.
Grant, Mrs. R. B., Jr., Bryan.
Harrison, Mrs. R. H., Jr., Bryan.
Marsh, Mrs. J. E., College Station.
Perry, Mrs. J. S., Bryan.
Richardson, Mrs. S. C., Bryan.
Searcy, Mrs. R. M., Bryan.
Walton, Mrs. T. O., Jr., College Station.
Walton, Mrs. T. T., Bryan.
Wilkerson, Mrs. L. O., Bryan.

FALLS COUNTY AUXILIARY†

Barnett, Mrs. J. B., 105 Foster St.
Barnett, Mrs. J. H., 306 Agnes Ave.
Buie, Mrs. N. D., 407 Capps St.
*Bennett, Mrs. A. C., 202 Chilton St.
Carter, Mrs. H. G., 403 Capps St.
*Carter, Mrs. L. C., 131 Rock Dam Road.
Collier, Mrs. J. I., 717 Walker St.
Davison, Mrs. M. A., 332 Agnes Ave.
Garrett, Mrs. H. S., 317 Houghton.
Glass, Mrs. Tom, 127 Watson.
Hampshire, Mrs. G. H., Falls Hotel.
Hornbeck, Mrs. A. C., 310 Houghton Ave.
Hutchings, Mrs. E. P., 131 Maryland Ave.
Hutchins, Mrs. A. M., 549 Capps St.
*Smith, Mrs. Walter, 337 Agnes Ave.
Torbett, Mrs. J. W., 302 Houghton Ave.
Von Tobel, Mrs. A. E., 108 Watson St.

JOHNSON COUNTY AUXILIARY

*Carrigan, Mrs. Tom A., 804 N. Main, Cleburne.
*Dennis, Mrs. M., 206 Forest, Cleburne.
*Doughtie, Mrs. Jack, 611 Forest, Cleburne.
Fine, Mrs. Eldon, 732 N. Main, Cleburne.
Jowell, Mrs. C. C., Grandview Highway, Cleburne.
Knox, Mrs. M. T., 201 Belview, Cleburne.
*Kimbro, Mrs. R. W., San Antonio.
Little, Mrs. J. G., 606 W. Chambers, Cleburne.
*Rudd, Mrs. Lawrence, Burleson.
Turner, Mrs. B. H., 201 Featherston, Cleburne.
*Yater, Mrs. T. F., Sunset, Cleburne.

McLENNAN COUNTY AUXILIARY‡

Alexander, Mrs. Boyd, 1024 N. 19th.
Alexander, Mrs. R. B., 3725 Castle.
*Anspach, Mrs. H. M., 2511 Maple.
Aynesworth, Mrs. H. T., 3000 Cumberland.
*Aynesworth. Mrs M. Brian, 436 Rice (Aynesworth).
Baker, Mrs. M. D., 2806 Washington.
*Barnes, Mrs. Maurice, 3304 Morrow.
Brooks, Mrs. C. H., 2300 Bosque Blvd.
Bradford, Mrs. J. D., Mart.
*Burgess, Mrs. J. L., 1821 Sanger.
Cannon, Mrs. I. F., Mart.
*Carlisle, Mrs. M. C., 1410 Austin.
Catto, Mrs. C. G., 1014 N. 19th.
Coffelt, Mrs. Ralph L., 424 N. 23rd.
Connally, Mrs. H. F., 2223 Colcord.
Crosthwait, Mrs. W. L., 1104 N. 18th.
*Dudgeon, Mrs. H. R., 2200 Gorman.
Germany, Mrs. H. J., 2324 Bosque Blvd.
Gidney, Mrs. Hayes, West.
Gilliam, Mrs. J. R., Mart.
Goodman, Mrs. Aubrey L., 3305 Castle.
Hale, Mrs. J. W., 1520 Washington.
Hanks, Mrs. Robert J., 3222 Cumberland.
*Hawkins, Mrs. W. W.
*Jaworski, Mrs. H., Temple.
Jenkins, Mrs. I. Warner, 2208 Gorman.
Kirby, Mrs. F. F., 2801 Sanger.
Kochmann, Mrs. W. P., 3100 Live Oak.
Lattimore, Mrs. John E., 3020 Trice.
*Manske, Mrs. A. O.
Mewshaw, Mrs. R. E. L., 905 S. 8th.
Murphey, Mrs. Paul C., 3100 Maple.
*Oliver, Mrs. Thos. M., 2019 Washington Ave.
Powell, Mrs. E. V., 606 N. 16th.
Power, Mrs. Paul H., Orchard Lane.
Rayburn, Mrs. C. E., 2601 Fort.
Reese, Mrs. Walter L., Sr., (Assoc.), 1616 N. 5th.
Roddy, Mrs. Louis H., 210 Oriental.
*Sadler, Mrs. Leslie, 3400 Chateau.
Siler, Mrs. Ivey Wood, (Assoc.), 2004 Columbus.
Simpson, Mrs. J. W., (Assoc.), 2901 Lasker.
*Simpson, Mrs. Neill, Hardin Apts.
Smith, Mrs. Ed, 1226 Herring.
Souther, Mrs. W. L., 2005 N. 7th.
Spencer, Mrs. Shelby C., 419 N. 23rd.
*Scanio, Mrs. Thos, J., West.
*Smith, Mrs. Carroll C., Mart.
*Traylor, Mrs C. J., 2123 Colcord.
Trice, Mrs. W. G., 414 N. 23rd.
Trippet, Mrs. Horace E., 3723 Cletean.
Warren, Mrs. D. D., 1322 Washington.
*Wells, Mrs W. H., 3600 Grim.
Witte, Mrs. W. S., Palm Courts.
Wood, Mrs. R. Spencer, 424 Oriental.
Wood, Mrs. W. A., 3100 Morrow.
Woolsey, Mrs. W. J., Lake Waco.

MEMBERS-AT-LARGE, TWELFTH DISTRICT

Goodall, Mrs. C. L., Clifton.
Goodall, Mrs. Van Doren, Clifton.
Long, Mrs. Austin, Valley Mills.

THIRTEENTH OR NORTHWESTERN DISTRICT

Mrs. Walter Jackson
Ranger
Council Woman

BAYLOR-KNOX-HASKELL COUNTIES AUXILIARY

Edwards, Mrs. T. S., Knox City.
Foy, Mrs. J. W., Seymour.
Frizzell, Mrs. T. P., Knox City.
Johnson, Mrs. C. E., Seymour.
Lowry, Mrs. R. K., Seymour.
Scott, Mrs. Frank C., Haskell.
Williams, Mrs. T. W., Haskell.

ERATH-HOOD-SOMERVELL COUNTIES AUXILIARY

Bessonette, Mrs. W. V., Stephenville.
Bryan, Mrs. T. F., Dublin.
Terrell, Mrs. J. C., Stephenville.
Terrell, Mrs. Vance, Stephenville.

TARRANT COUNTY AUXILIARY†

Allison, Mrs. Wilmer L., 4503 Norma St.
Anderson, Mrs. James V., 1308 Hemphill St.
Andujar, Mrs. John J., 2951 Benrook Blvd.
Anthony, Mrs. Ernest E., Jr., 1210 W. Jessamine.
Antweil, Mrs. A., 1919 Forest Park.
Armstrong, Mrs. W. Frank, 2432 Medford Ct. E.
Baker, Mrs. R. G., 5824 El Campo Ter.
Ball, Mrs. Charles E., 4208 Lone Oak Drive.
Barcus, Mrs. W. S., 2020 Hillcrest.
Beall, Mrs. Frank C., 1420 N. Ballinger.
Beall, Mrs. K. H., 1600 Sunset Ter.
Beavers, Mrs. G. Herbert, 46 Valley Ridge Rd.
Bennett, Mrs. Jerrell, 3501 Bellaire Drive So.
Bond, Mrs. Tom B., Lake Worth.
Brown, Mrs. J. Hyal, 2409 Medford Ct. W.
Brown, Mrs. W. Porter, 2515 S. Adams.
Campbell, Mrs. J. F., 2703 Scott.
Carpenter, Mrs. Nathan C., 3612 Potomac.
Chambers, Mrs. James O., 3715 Lennox.
Cheatham, Mrs. T. H., 2124 Park Place.
Clayton, Mrs. Chas. F., White Settlement Rd.
Cohn, Mrs. Maurice H., 2420 Wabash.
Covert, Mrs. J. D., 2711 University Dr.
Crabb, Mrs. M. H., 1508 Hemphill
Cross, Mrs. Thos. J., 2424 Lofton Ter.
Daly, Mrs. Jack, 2200 Huntington Lane.
Davis, Mrs. Edwin, 1320 Washington
Day, Mrs. Giles W., 3932 Modlin.
Deaton, Mrs. Hobart O., 1221 Clara St.
Doss, Mrs. Keller, 2701 Benbrook Blvd.
Duringer, Mrs. W. C., 2508 Ryan Place.
Enloe, Mrs. George R., 3105 Stadium Dr.
Francis, Mrs. Fred W., 2614 Kensington Drive.
Garrett, Mrs. C. C., 4800 Byers.
Givens, Mrs. J. M, 127 W. Broadway.
Godley, Mrs. L. O., 2129 Park Place.
Goldberg, Mrs. A. I., 1937 Forest Park Blvd.

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*Members on leave.

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Griffith, Mrs. M. A., 2110 Roosevelt.
Grogan, Mrs. O. R., 2300 Avondale.
Grogan, Mrs. R. L., 3009 Simondale Drive.
Hall, Mrs. E. P., Sr., 2233 Hemphill.
Harper, Mrs. Henry, 2741 Fifth Ave.
Harris, Mrs. Earl, 2005 Warner Rd.
Hayes, Mrs. C. F., 1609 Harrington.
Hiett, Mrs. Carey, 1424 Virginia Place.
Hightower, Mrs. L. P., 3905 Hamilton Drive.
Horn, Mrs. Will S., 2217 Winton Ter. W.
Howard, Mrs. E. L., Rt 1, Box 329, Birdville Rd.
Howard, Mrs. Rex, 3125 Wabash.
Huffman, Mrs. A. M., 3029 Lipscomb.
Hyde, Mrs. X. R., Riverlake Drive.
Jackson, Mrs. A. E., Rt. 7, Box 132.
Jackson, Mrs. H. T., 416 Crestwood Drive.
Jagoda, Mrs. Samuel, 2512 Fifth Ave.
Kibbie, Mrs. Kent V., 715 W. Leuda.
Kingsbury, Mrs. H. B., 2041 Windsor Place
Kramer, Mrs. J. T., 3016 Marigold.
Lackey, Mrs. W. C., 2300 Medford Court East.
Ladd, Mrs. A. D., 1109 S. Henderson.
Langs, Mrs. A. A., 2600 Ryan Place Dr.
Lauderdale, Mrs. T. L., 2212 Hawthorne.
Lawson, Mrs. J. Mack, 3724 Bellaire Drive N.
Littlepage, Mrs. H. B., 814 W. Terrell.
Lorimer, Mrs. W. S., 2240 Winton Ter. W.
Lyle, Mrs. Judge M., 2421 Stadium Dr.
Matheson, Mrs. D. N., 2500 Cockrell.
McCarroll, Mrs. M. C., 3724 Linden.
McKean, Mrs. R. W., 2705 Travis.
McKee, Mrs. Frank, 2300 Avalon Ct.
McVeigh, Mrs. J. F., 4800 Crestline Rd.
Mulkey, Mrs. Y. J., 2309 Harrison.
Munter, Mrs. Craig, 2811 Potomac.
Murchison, Mrs. S. J. R., 3205 Stadium.
Nesbit, Mrs. Preston M., Arlington.
O'Bannon, Mrs. R. P., 2135 Warner Rd.
Ott, Mrs. William O., 1019 W. Terrell.
Phillips, Mrs. W. G., 3115 Race St.
Pumphrey, Mrs. A. B., White Settlement Rd.
Rathgeber, Mrs. Van D., 2320 Mistletoe Blvd.
Richardson, Mrs. J. J., 2404 Medford Ct. E.
Roberts, Mrs. Aaron L., 1818 Eighth Ave.
Rumph, Mrs. Demetrius M., 1521 Grand.
Rumph, Mrs. Mal, 1940 Forest Park Blvd.
Rumph, Mrs. T. G., 2101 Pembroke Dr.
Schenck, Mrs. C. P., 3117 Stadium Dr.
Schoonover, Mrs. Frank S., 600 Eighth Ave.
Schwarz, Mrs. Edwin G., 2420 Shirley.
Sewell, Mrs. Robert, 6105 Locke.
Shaw, Mrs. E. L., 1908 Ashland.
Sheddan, Mrs. Frank G., 1313 Sinclair Bldg.
Shelley, Mrs. Harold J., 4071 Modlin.
Snyder, Mrs. F. L., 304 Virginia Place.
Spivey, Mrs. J. L., 2239 W. Magnolia.
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Swift, Mrs. W. B., 3743 Westcliff Rd. S.
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Taylor, Mrs. Holman, 2025 Huntington Lane.
Terrell, Mrs. Caleb O., 2621 Waits.
Terrell, Mrs. Truman C., 2401 Stadium.
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Thompson, Mrs. W. R., 2306 Sixth Ave.
Tottenham, Mrs. John W., Sr., 1204 N. Riverside Dr.
Touzel, Mrs. C. S. E., 1326 Summit.
Trigg, Mrs. Henry B., Texas Hotel.
Trigg, Mrs. Ross, 500 First Natl. Bank Bldg.
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Webb, Mrs. William S., 1209 Thomas Pl.
Wier, Mrs. E. M., 1315 Bellaire Dr.
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Levy, Mrs. Lewis, 129 Williamsburg Lane.
McCollum, Mrs. C. H., Jr., 3137 Stadium Drive.
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Barnett, Mrs. W. H., 3458 South 8th.
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*Bailey, Mrs. S. W., 1318 Vine.
Cash, Mrs. W. A. V., 901 Albany.
Clark, Mrs. J. Frank, 1400 Austin.
*Crow, Mrs. Jack, 1809 South 14th.
Daly, Mrs. Joseph, 1026 Marshall.
*Estes, Mrs. Jack, 1934 Hickory.
Estes, Mrs. J. M., 1934 Hickory.
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*Grey, Mrs. George A., 3142 South 7th.
Grubbs, Mrs. L. F., 624 Amarillo.
Hedrick, Mrs. T. Wade, 1310 Sylvan Dr.
*Hodges, Mrs. Frank C., 1522 North 19th.
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Johnson, Mrs. L. F., 1319 Austin.
Kirkpatrick, Mrs. R. B., 918 Palm.
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Mathews, Mrs. W. J., 1326 Highland.
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Middleton, Mrs. E. R., 842 Sayles Blvd.
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Sellers, Mrs. Earle D., 1301 Elmwood Dr.
Shytles, Mrs. Grady, 941 Ross.
Snow, Mrs. W. R., 735 Sayles Blvd.
Tull, Mrs. Raymond H., 1658 North 21st.
*Whiting, Mrs. E. T., Southeast Abilene.

‡With husbands in service.
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Clark, Mrs. Gordon, Iowa Park.
Collard, Mrs. F. R., 2414 9th Street.
Collins, Mrs. Bailey R., 2017 Berkeley.
Crump, Mrs. W. E., 1673 Dayton.
*Daily, Mrs. R. L., 1819 Wilson.
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Gill, Mrs. M. F., State Hospital.
Glover, Mrs. M. H., 1712 11th Street.
Guest, Mrs. J. C. A., 1801 11th Street.
Hall, Mrs. J. D., 1723 Elizabeth.
Hargrave, Mrs. R. L., 1824 Huff.
Hartsook, Mrs. Charles R., Hamilton Bldg.
Heyman, Mrs. J. A., 3113 Milby.
Holland, Mrs. L. B., 1615 Pearl.
Johnson, Mrs. J. A., 1711 Victory.
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Kiel, Mrs. O. B., 2104 Miramer.
Kimbrough, Mrs. O. T., 1920 Victory.
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Little, Mrs. R. D., 1663 Dayton.
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Lynch, Mrs. T. C., 1114 Harlan.
Manar, Mrs. R. W., 1820 Wilson.
Mangum, Mrs. C. E., 2901 Taft.
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Nelson, Mrs. R. L., 2204 Avondale.
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Prichard, Mrs. H. D., 3715 Kessler.
Reagan, Mrs. J. R., 2102 Avondale.
Russell, Mrs. J. D., Burkburnett.
*Rundell, Mrs. W. K., 1815 Collins.
Seay, Mrs. Joe A., Iowa Park Road.
Singleton, Mrs. G. T., 2207 Avondale.
Smith, Mrs. P. K., 2110 Wenonah.
Sullivan, Mrs. H. C., Burkburnett.
Whiting, Mrs. W. B., 2175 Avenue I.
Wilson, Mrs. O. W., 1006 Brook.

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Brown, Mrs. L. C., Eastland.
Cartwright, Mrs. H. H., Breckenridge.
Caton, Mrs. J. H., Eastland.
Ferguson, Mrs. R. G., Eastland.
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Harris, Mrs. E. C., Bowie.
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Kessler, Mrs. C. M., Breckenridge.
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Payne, Mrs. F. C., Breckenridge.
Rogers, Mrs. T. G., Decatur.
Townsend, Mrs. E. Roy, Eastland.
Woods, Mrs. G. C., Breckenridge.
Wray, Mrs. P. C., Breckenridge.
Wright, Mrs. E. W., Bowie.
Youngblood, Mrs. D. R. G., Breckenridge.

FOURTEENTH OR NORTHERN DISTRICT

Mrs. S. M. Hill, 3617 Lexington
Dallas
Council Woman

COOKE COUNTY AUXILIARY

Atchison, Mrs. J. W., 519 Lindsey St., Gainesville.
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Myrick, Mrs. Thomas, Muenster.
Thayer, Mrs. Charles B., 1014 S. Denton St., Gainesville.
Thomas, Mrs. Ira L., 628 Lindsey St., Gainesville.
Whiddon, Mrs. Rufus C., 1112 Lindsey St., Gainesville.

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Yarbrough, Mrs. Silas M., 312 S. Grande, Gainesville.

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Alessandra, Mrs. S. A.
Alexander, Mrs. Jo C., Stoneleigh Court.
Alexander, Mrs. Lee J., 2819 Welborn.
Allday, Mrs. L. E.
Allen, Mrs. Burton W., 5647 Ridgedale.
Allison, Mrs. Wilfred, Jr., 6948 Lakeshore.
Altman, Mrs. William A., 1528 Oak Knoll.
Arnold, Mrs. L. E., 3644 Greenbrier.
Aronson, Mrs. Hattie, Maple Terrace.
Ashby, Mrs. John E., 3429 Cornell.
Aten, Mrs. Eugene L.
Ault, Mrs. C. A., Jr.
Austin, Mrs. Frank H., 4504 Arcady.
Bagwell, Mrs. John S., 3236 Purdue.
Baird, Mrs. Sydney S., 3549 Southwestern.
Baldwin, Mrs. Alvin, Jr., 5726 Cedar Springs.
Barnes, Mrs. Dorsey K., 5419 Farquhar Lane.
Barr, Mrs. Tom., 4683 Belclaire.
Barta, Mrs. C. K.
Barton, Mrs. Robert M., 4513 Beverly Dr.
Beall, Mrs. John R., 3304 Beverly Dr.
Beaver, Mrs. N. B., 4329 Fairfax.
Beckering, Mrs. H. H., 4693 Fairfax.
Bell, Mrs. Marvin D., 6347 Tremont.
Berger, Mrs. B. J., 3916 Stonebridge Dr.
Black, Mrs. Leonard F., 4621 Munger.
Bland, Mrs. Leonard F., 3624 Princeton.
Block, Mrs. Cecil, 2622 Park Row.
Block, Mrs. Harold M.
Bourland, Mrs. John B., 3490 Beverly.
Bourland, Mrs. J. W., Jr., 4438 Arcady.
Bradford, Mrs. William H., 4679 Westside.
Brannin, Mrs. Dan., 4103 Averill Way.
Brannin, Mrs. Edward B., 7710 S. Haskell.
Brau, Mrs. J. Gilmore.
Brereton, Mrs. G. E., 5847 Velasco.
Brooks, Mrs. E. J., 1205 N. Edgefield
Brown, Mrs. C. Frank, 4401 Edlen.
Brown, Mrs. S. Roland.
Browne, Mrs. W. C., 705 N. Marsalis.
Brooksaler, Mrs. Fred, 4332 Grassmere Lane.
Bruton, Mrs. Emmett B., 5218 Vickery Blvd.
Buford, Mrs. Ben R., 4001 Druid Lane.
Bumpass, Mrs. S. R., 6918 Vivian.
Burgess, Mrs. George A.
Bush, Mrs. Douglas Moore, 3625 Hanover.
Butte, Mrs. Felix L., 3700 Maplewood.
Bywaters, Mrs. T. W., Falls Road.
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Carlson, Mrs. G. D.
Carman, Mrs. H. Frank, 6228 Preston Road.
Carrell, Mrs. Brandon, 4429 Belclaire.
Carrell, Mrs. W. B., 2317 Welborn.
Carswell, Mrs. W. E., 6722 Lakeshore Dr.
Carter, Mrs. C. B.
Cary, Mrs. Edward H., 4712 Lakeside Dr.
Chapman, Mrs. John S., 3828 Purdue.
Cheavens, Mrs. Tom H., 708 N. Glassgow Dr.
Cinnamon, Mrs. Alfred M., 6938 Casa Loma.
Clark, Mrs. Harold G., 4742 Mockingbird Lane.
Coble, Mrs. J. M., 2504 Maple Ave.
Cochran, Mrs. H. Walton, 3308 St. John's Dr.
Collier, Mrs. Gates, 2219 N. Fitzhugh.
Cookerly, Mrs. Van, 4412 Lorraine.
Copeland, Mrs. F. R., 3506 Springbrook.
Cowart, Mrs. Robert W., 4313 Worth.
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Daniel, Mrs. Robert H., 3313 Dartsmouth.
Daniel, Dr. Ruby K., 4212 Loma Alto.
Dathe, Mrs. Richard.
Davidson, Mrs. G. A., 1025 Cordova.
Davis, Mrs. David B., 1832 South Blvd.
Dawson, Mrs. J. L., 9825 Northwest Highway.
Dean, Mrs. John H., 5001 Northwest Highway.
Deatherage, Mrs. William, 4517 Reiger.
Decherd, Mrs. Henry B., 3708 Rawlins.
D'Errico, Mrs. Albert, 407 Shadywood Lane.
Devereax, Mrs. W. P., 3808 Miramer.
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Donald, Mrs. Homer, 1545 West Colorado Blvd.
Dorman, Mrs. J. H., 3636 Lovers Lane.
Dozier, Mrs. Fred.
Duckett, Mrs. J. W., 3529 Caruth Blvd.
Dunlap, Mrs. Elbert, 3712 Lammon.
Dunlap, Mrs. John, 4527 Fairway.
Dunstan, Mrs. E. M.
Edwards, Mrs. William L., 2014 Euclid.
Embree, Mrs. John W., 4218 Fairfax.
Evans, Mrs. W. G., 4065 Purdue.
Fowler, Mrs. W. W., 4530 Munger Ave.
Fox, Mrs. Everett C.
Franklin, Mrs. Floyd S., 4675 Edmondson.
Franklow, Mrs. C. D., Baker Hotel.
Freedman, Mrs. S. M., Maple Terrace.
Fry, Mrs. Murdock D., 4445 Lakewood Blvd.
Galt, Mrs. Sidney, 4148 Newton.
Gaudlin, Mrs. Robert J., 636 Second Ave.
Gessner, Mrs. F. E., 7235 Lakewood Blvd.
Gibbons, Mrs. O. W., 4329 Lorraine.
Giles, Mrs. Robert B., 3900 Potomac.
Gill, Mrs. Horace E., 1106 Calloway.
Goff, Mrs. G. F., 3817 Maplewood.
Goforth, Mrs. J. L., 6907 Westlake.
Goode, Mrs. John V., 4376 Potomac.
Gordon, Mrs. E. S., 511 Brookside Dr.
Green, Mrs. Tim, 811 S. Windomere.
Greer, Mrs. D. E., 206 W. 10th Street.
Griffin, Mrs. B. H., Frost.
Grow, Mrs. Max H.
Hacker, Mrs. Guy L., 3600 Colgate.
Hackler, Mrs. G. M., 3928 University Blvd.
Hackney, Mrs. U. P., 5703 Vanderbilt.
Haley, Mrs. W. E., 4720 St. John's Dr.
Hampton, Mrs. J. A., 4433 S. Versailles.
Hannah, Mrs. Calvin R., 3921 Potomac.
Harder, Mrs. Ira E., 4931 Park Lane.
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Harrington, Mrs. S. F., 3722 Cragmont.
Harris, Mrs. N. J., 4321 Westway.
Harrison, Mrs. Ben F., 3115 Amherst.
Harvill, Mrs. T. Hanes.
Hawley, Mrs. J. Leeper, 4429 Amherst.
Hawkins, Mrs. H. F., 4429 Amherst.
Henry, Mrs. David J., 6447 Kenwood.
Herndon, Mrs. James, 2100 West Kessler.
Hill, Mrs. J. H., 6752 Avalon.
Hill, Mrs. S. M., 3617 Lexington.
Hilliard, Mrs. George M.
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Hodges, Mrs. Leon, Hampton Road.
Holtz, Mrs. H. E., 4224 Colgate.
Hopkins, Dr. Agnes May, 4517 Highland Dr.
Howard, Mrs. George W., 628 Haynes.
Howard, Mrs. William E., 6616 Gaston.
Howell, Mrs. J. B., 4727 Coles Manor Pl.
Hudson, Mrs. Lee, 4312 Overhill Dr.
Jackson, Mrs. Reuben W., 4200 DeLoache.
Jackson, Mrs. Rice R., 5639 Gaston.
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Jenkins, Mrs. Speight, 9191 Preston Road.
Jones, Mrs. Everett, Stoneleigh Hotel.
Jones, Mrs. J. Guy, 5808 Gaston.
Jones, Mrs. W. D., 6875 Tokalon Dr.
Kerr, Mrs. Jack G., 3513 Milton.
Kilgore, Mrs. Donald G., 3318 Dartsmouth.
Kindley, Mrs. George C., 5211 Live Oak.
King, Mrs. Karl B.
Kirksey, Mrs. Tom M., 4521 N. Versailles.
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Knowles, Mrs. W. Mood, 6636 Avalon.
Knox, Mrs. Robert, 4348 Livingston.
Kreymer, Mrs. George, 1016 N. Peak.
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Leeper, Mrs. Edward P.
Lehman, Mrs. John R., 3921 Potomac.
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Long, Mrs. Gerald D., 2904 Yale.
Long, Mrs. Troy, 334 Purdue.
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Lott, Mrs. Mark E., 6626 Gaston.
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Marshall, Mrs. J. H., 6241 La Vista Dr.
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Martin, Mrs. W. E., 7129 Vivian.
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Maxfield, Mrs. J. R., Jr., 3601 Milton.
McBride, Mrs. Dayton G., 3729 Beverly Dr.
McBride, Mrs. R. B., 6700 Turtle Creek.
McCrackern, Mrs. Joseph H., 4401 Highland Dr.
McFarland, Mrs. Gordon B., 8728 Inwood Road.
McIvern, Mrs. Julius, 3224 Southwestern.
McLaurin, Mrs. Hugh L., Jr., 4801 Highland Drive.
McLeod, Mrs. J. N., 4710 Munger.
Mendenhall, Mrs. Elliott, 4221 Belclaire.
Metz, Mrs. M. Hill, 6811 Hunters Glen Rd.
Miller, Mrs. Tate, 6811 Hunters Glen Rd.
Milliken, Mrs. S. E.
Milliken, Mrs. S. Ramsey, 4918 Swiss.
Mills, Mrs. James T.
Minnett, Mrs. John S.
Montgomery, Mrs. James T., 4735 Bowser, Apt. 38.
Moody, Mrs. Joe V., 1534 Junior Dr.
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Morris, Mrs. A. Truett, 1430 San Rafael Dr.
Moursund, Mrs. Walter H., Jr.
Murchinson, Mrs. D. R., 4200 Park Lane.
Nash, Mrs. C. C., 1217 Lausanne.
Neuman, Mrs. Albert, 4319 Oak Lawn.
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Newton, Dr. Cosette Faust, 4005 Miramer.
O'Brien, Mrs. H. A., 4331 Avondale.
O'Brien, Mrs. Asa A., 4319 Oak Lawn.
Pace, Mrs. John M., 4849 Montrose.
Park, Mrs. B. E.
Parks, Mrs. Harold.
Paternostro, Mrs. Charles J., 4432 Mockingbird Parkway.
Patterson, Mrs. Casey E.
Patterson, Mrs. Cecil O., 3537 Southwestern.
Patterson, Mrs. C. P., 5423 Gaston.
Perkins, Mrs. Jack F., 3526 Cedar Springs.
Peyton, Mrs. J. B.
Pickett, Mrs. Taylor T., Box 81, Garland.
Pierce, Mrs. Franklin A., 6120 Gaston.
Potts, Mrs. W. H., Jr., 4325 Glenwood.
Powell, Mrs. Homer, 7003 Denton Dr.
Quinn, Mrs. Lester H., 4505 Edmondson.
Rattan, Mrs. Paul L., 5647 Mockingbird Lane.
Reddick, Mrs. W. Grady.
Reaves, Mrs. L. M., 4553 Bordeaux.
Riddle, Mrs. Penn, 927 N. Tyler.
Riley, Mrs. Joseph G., 2619 Abrams Road.
Rippey, Mrs. Edwin L., 3622 Fairmount.
Rosenberg, Mrs. M. L., 5718 Anita.
Rosenthal, Mrs. Raoul S., Melrose Hotel.
Ross, Mrs. Edward S.
Rouse, Mrs. Milford O., 7025 Gaston.
Rubenstein, Mrs. Bernard, 516 Largent.
Rucker, Mrs. J. C., 3452 Amherst.
Rumpf, Mrs. William H., 3429 Westminster.
Sams, Mrs. Lewis C., 835 Salmon Dr.
Scales, Mrs. John G.
Schaefer, Mrs. J. G., 2720 Purdue.
Schenewerk, Mrs. George A.
Schmaltz, Mrs. W. F., 5442 Richmond.
Schoch, Mrs. Arthur G., 4109 Averill Way.
Schoolfield, Mrs. Ben L., 5025 Junius.
Schuett, Mrs. Albert J., 5822 Mercedes.
Seay, Mrs. Dero E., 3421 Beverly Dr.
Sebastian, Mrs. E. J.
Seeds, Mrs. Asa E., 4332 Stanhope.
Seely, Mrs. M. Stuart, 3911 Gaston.
Selecman, Mrs. Frank, 3609 Rosedale.
Sellers, Mrs. Lyle M., 3412 Southwestern.
Shane, Mrs. J. Howard, 4668 Fairfax.
Shannon, Mrs. Hall, 4230 Fairfax.
Shaw, Mrs. Robert R., 4109 Amherst.
Shelburne, Mrs. Samuel.
Sheldon, Mrs. Lawrence B., 4577 Rheims Place.
Shelmire, Mrs. Bedford, 3813 Miramar.
Shepherd, Mrs. Walter F., 5819 Mercedes.
Short, Mrs. Robert F.
Shortal, Mrs. W. W., 7710 Lakewood Blvd.

†Address is Dallas, unless otherwise stated.

Shuey, Mrs. Charles B., 4436 Southern.
Simpson, Mrs. Charles W., 3517 Lakewood Blvd.
Singleton, Mrs. J. Dudley, 3716 Amherst.
Slaughter, Mrs. Donald, 4518 Vandalia.
Small, Mrs. De Witt, 4126 Normandy.
Smith, Mrs. Edgar, 5650 Gaston.
Smith, Mrs. Ralph C., 4000 Hawthorne.
Smith, Mrs. Richard M., 3659 Maplewood.
Sowers, Mrs. Harry B.
Spangler, Mrs. Davis, 4407 Westway.
Spence, Mrs. Harry M., 6438 Covington Lane.
Stephenson, Mrs. J. H., 4523 Cedar Springs.
Stephenson, Mrs. W. W., 4005 Hall.
Stone, Mrs. Marvin P., 4417 Southern.
Strother, Mrs. W. K., Jr., 6001 St. Andrews Dr.
Stuart, Mrs. Samuel E.
Super, Mrs. A. R., 4030 Norway Road.
Taber, Mrs. Martin E., 3617 Lammon.
Talkington, Mrs. P. C.
Taylor, Mrs. H. Earl, 4218 McFarlin.
Terrell, Mrs. Alex W., 4731 Wildwood.
Terrill, Mrs. James J., 711 Dumont.
Thomas, Mrs. Paul, 4130 Druid Lane.
Thomas, Mrs. Maxwell.
Thomasson, Mrs. Gus W., Jr.
Thomasson, Mrs. A. R., 4229 Arcady.
Thomasson, Mrs. A. R., Jr., 4229 Arcady.
Thompson, Mrs. L. S., 3620 Princeton.
Thornton, Mrs. G. W., 337 Sunset.
Tittle, Mrs. Guy A., 4201 Belclaire.
Tittle, Mrs. Lloyd C., 6633 Golf Dr.
Tomkies, Mrs. James S., 6911 Meadow Lake.
Touchstone, Mrs. Jay L., 4515 Livingston.
Trumbull, Mrs. R. A., Richardson.
Tubb, Mrs. Cullen L., 2414 Auburn Ave.
Turner, Mrs. John S., 919 N. Marsalis.
Underwood, Mrs. George M., 3908 McFarlin.
Usry, Mrs. R. S., 1835 Garret.
Van Duzen, Mrs. Rex E., 4601 DeLoache.
Walcott, Mrs. H. C., 5394 Key.
Walker, Mrs. Price M.
Waldman, Mrs. Morris, 4034½ Hawthorne.
Warren, Mrs. Charles H., 4203 Northwest Highway.
Webb, Mrs. Sam, Jr., 3712 Alice Circle.
Wells, Mrs. J. T., 4015 Colonial.
White, Mrs. C. Vincent, Route 7, Box 223.
White, Mrs. Edward, 4319 Arcady.
White, Mrs. William T., 4335 Lorraine.
Whitten, Mrs. Merrit B., 4929 Swiss Ave.
Wilkinson, Mrs. Albert, 1021 N. Montclair.
Williams, Mrs. T. S., 318 Beckleywood Blvd.
Williams, Mrs. Paul C., 3844 Turtle Creek Drive.
Winans, Mrs. Henry M., 3825 Beverly Dr.
Winn, Mrs. Robert E., 8730 Canyon Dr.
Winn, Mrs. Watt W., 3520 Hanover.
Witt, Mrs. Guy F., 6801 Hunters Glen Rd.
Wolfe, Mrs. Joseph.
Woodard, Mrs. T. Leroy, 5711 Vanderville.
Woods, Mrs. Ozro T., 3501 Harvard.
Wright, Mrs. Carlton C.
Wright, Mrs. R. E., 3801 Amherst.
Yancey, Mrs. R. S., 4629 Wenonah Dr.
Young, Mrs. John G., 3514 Rock Creek Dr.
Zuelzer, Mrs. Wilhelm.

ELLIS COUNTY AUXILIARY†

Campbell, Mrs. W. E., Ennis.
Clark, Mrs. J. S., Ennis.
Clark, Mrs. L. E., Ennis.
Estes, Mrs. T. G.
Gough, Mrs. E. F.
Hastings, Mrs. M. E.
Jenkins, Mrs. F. M.
Jenkins, Mrs. J.
Jones, Mrs. J. E.
Sweatt, Mrs. O. P.
Story, Mrs. F. L.
Watson, Mrs. S. H., Ennis.
Thomas, Mrs. G. L.

†Address is Waxahachie, unless otherwise stated.

GRAYSON COUNTY AUXILIARY

Bates, Mrs. I. C., Route 5, Sherman.
Blassingame, Mrs. Doak, 39 Vaughn Dr., Denison.
Brown, Mrs. H. L., 511 S. Travis, Sherman.
Carraway, Mrs. J. H., 1212 N. Woods, Sherman.
Carter, Mrs. Wilbur, 1002 S. Crockett, Sherman.
Enloe, Mrs. D. C., 1307 N. Hopson, Sherman.
Fowler, Mrs. F. F., 1112 W. Walker, Denison.
Freeman, Mrs. William, 931 W. Bond., Denison.
Freeman, Mrs. Don, 39 Vaughn Dr., Denison.
Gleckler, Mrs. Arthur, 1102 S. Crockett, Sherman.
Greer, Mrs. G. W., Whitesboro.
Hailey, Mrs. E. L., 1200 W. Walker, Denison.
Henschen, Mrs. G. E., 926 S. Travis, Sherman.
Jamison, Mrs. D. K., 910 W. Gandy, Denison.
Lee, Mrs. W. A., 1201 Morton, Denison.
Levin, Mrs. S. O., 1430 W. Gandy, Denison.
Mayes, Mrs. J. A., 1301 W. Gandy, Denison.
Pierce, Mrs. Paul, 1400 W. Gandy, Denison.
Russell, Mrs. B. A., 826 W. Houston, Sherman.
Sneed, Mrs. A. J., 1205 W. Walker, Denison.
Sporer, Mrs. Frank, Van Alstyne.
Southerland, Mrs. W. I., 1221 Preston Dr., Sherman.
Stout, Mrs. H. I., 811 S. Crockett, Sherman.
Strother, Mrs. C. D., 1418 Preston Dr., Sherman.
Williams, Mrs. E. C., Collinsville.
Woodward, Mrs. Max, 1020 Leslie, Sherman.

HOPKINS-FRANKLIN COUNTIES AUXILIARY†

Chapman, Mrs. B. F.
Conner, Mrs. W. E., Como.
Hannah, Mrs. W. Ray.
Johnson, Mrs. J. J.
Long, Mrs. W. W.
Longino, Mrs. Byrd.
Lynch, Mrs. Treau, Como.
McConnel, Mrs. L. H.
McGarity, Mrs. L. E., Como.
Pratt, Mrs. R. E.
Southerland, Mrs. W. S.
Stirling, Mrs. Earl.
Worsham, Mrs. A. B.

HUNT-ROCKWALL-RAINS COUNTIES AUXILIARY‡

Arnold, Mrs. B. F., 1804 Stonewall.
Becton, Mrs. Joe, 1320 Park.
Bradford, Mrs. H. M., 3819 Stonewall.
Cantrell, Mrs. Will, 3414 Lee.
*Crim, Mrs. E. Truett, 2506 Park.
Cooper, Mrs. J. S., 3605 Oneal.
Hanchey, Mrs. J. M., 1830 N. Speedway.
*Handley, Mrs. J. J.
*Hayes, Mrs. E. R., 2827 Jones.
*Kay, Mrs. Royal H., 3816 S. Wesley.
Kennedy, Mrs. C. T., 2206 Park.
Kennedy, Mrs. C. T., Jr., 2206 Park.
King, Mrs. H. B., 4312 Wesley.
Maier, Mrs. H. W., 3808 Pine.
Morrow, Mrs. W. C., 2704 Polk.
Pennington, Mrs. W. E., 3603 Stonewall.
Phillips, Mrs. W. P., 2101 Park.

†Address is Sulphur Springs unless otherwise stated
‡Address is Greenville unless otherwise stated.
*Members on leave.

Reeves, Mrs. W. B., 2309 Wesley.
Strickland, Mrs. T. C., Mineral Heights.
Swindell, Mrs. J. W., Ardis Heights.
Trentham, Mrs. J. C., Peniel.
Ward, Mrs. J. W., 1612 Park.
Wilbanks, Mrs. M. L., 2905 Henry.

KAUFMAN COUNTY AUXILIARY†

Alexander, Mrs. G. H., 203 N. Rockwall.
Alexander, Mrs. W. F., 203 N. Rockwall.
Davis, Mrs. T. P., Jefferson St.
Friddell, Mrs. D. T., W. Nash.
Hall, Mrs. Ed, Kaufman.
Holton, Mrs. R. W., Lawrence Ave.
Jennings, Mrs. A. Y., Mabank.
Johnson, Mrs. L. W., Lawrence Ave.
Lane, Mrs. E. D., N. Rockwall Ave.
Neely, Miss Mary, Box 58.
Park, Mrs. J. W., Kaufman.
Powell, Mrs. George, Box 58.
Scarborough, Mrs. J. W., Box 58.
Sloan, Mrs. Roy, Box 58.
Thomas, Mrs. William, Box 58.

LAMAR COUNTY AUXILIARY‡

Armstrong, Mrs. J. E., 230 S. Main.
Baker, Mrs. C. D., 270 S. 31st.
Buford, Mrs. T. W., Minter.
Gilmore, Mrs. C. E., 57 N. 25th
Goolsby, Mrs. E., 149 Fitzhugh.
Hammond, Mrs. Scott, 335 Lamar.
Hooks, Mrs. J. M., 168 Clarksville.
Hunt, Mrs. T. E., 140 Fitzhugh.
*Herbow, Mrs. D. F., 15 N. 14th.
Lewis, Mrs. R. L., 318 Lamar.
McCuistion, Mrs. W. W., 289 Clarksville.
McMillan, Mrs. C. D., 223 Lamar.
O'Neill, Mrs. O. R., 126 Pine Bluff.
Roberts, Mrs. T. F., 109 Fitzhugh.
Robinson, Mrs. O. W., 392 Lamar.
Stark, Mrs. E. H., 210 Pine Bluff.
*Stephens, Mrs. J. A.
Stephens, Mrs. L. B., 394 Clarksville.
Walker, Mrs. M. A., 240 S. Main.
White, Mrs H. H., Lamar Road.

FIFTEENTH OR NORTHEASTERN DISTRICT

Mrs. R. C. Cross, Texarkana
Council Woman

BOWIE-MILLER COUNTIES AUXILIARY§

Baskett, Mrs. R. F., 1324 Hickory.
Collom, Mrs. S. A., 621 Main.
Collom, Mrs. Allen, 3016 Pine.
Cross, Mrs. R. C., 609 E. 39th.
Frank, Mrs. C. H., 3403 Hazel.
Kitchens, Mrs. C. E., 3002 Pine.
*Loftis, Mrs. W. O., 805 McArthur.
*McClure, Mrs. W. H., 2012 Laurel.
Pickett, Mrs. Reavis, 1902 Laurel.
Rives, Mrs. J. H., 2720 Hazel.
Roberts, Mrs. A. W., 2823 Olive.
Robinson, Mrs. J. T., 3019 Wood.
Smith, Mrs. C. A., 2919 Pine.
Spinka, Dr. Frances, 817 Main.
Tyson, Mrs. J. E., 2803 Olive.
Watts, Mrs. E. M., 412 Texas.

TITUS COUNTY AUXILIARY

Bassett, Mrs. T. R., Mt. Pleasant.
Ellis, Mrs. J. M., Mt. Pleasant.
Grissom, Mrs. T. S., Mt. Pleasant.

HARRISON COUNTY

Dues were paid on 10 members from Harrison County, but no list of members was mailed to the Treasurer for the publication.—TREASURER.

†Address is Terrell unless otherwise stated.
‡Address is Paris, unless otherwise stated.
§Address is Texarkana unless otherwise stated.
*Members on leave.

MEMBERSHIP

STATE MEDICAL ASSOCIATION OF TEXAS

JUNE, 1944

No. 1. El Paso District, embracing the following counties: Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, Loving, Pecos, Presidio, Reeves, Ward and Winkler.

No. 2. Big Spring District, embracing the following counties: Andrews, Borden, Dawson, Dickens, Ector, Fisher, Gaines, Garza, Glasscock, Howard, Kent, King, Lynn, Martin, Midland, Mitchell, Nolan, Scurry, Stonewall, Terry and Yoakum.

No. 3. Panhandle District, embracing the following counties: Armstrong, Bailey, Briscoe, Carson, Castro, Childress, Cochran, Cottle, Collingsworth, Crosby, Dallam, Deaf Smith, Donley, Floyd, Foard, Gray, Hale, Hall, Hansford, Hardeman, Hartley, Hemphill, Hockley, Hutchinson, Lamb, Lipscomb, Lubbock, Moore, Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher and Wheeler.

No. 4. San Angelo District, embracing the following counties: Brown, Coke, Coleman, Comanche, Concho, Crane, Crockett, Irion, Kimble, Mason, Menard, Mills, McCulloch, Reagan, Runnels, San Saba, Schleicher, Sterling, Sutton, Tom Green and Upton.

No. 5. San Antonio District, embracing the following counties Atascosa, Bandera, Bexar, Comal, Dimmit, Edwards, Frio, Gillespie, Gonzales, Guadalupe, Karnes, Kendall, Kerr, Kinney, LaSalle, Maverick, Medina, Real, Terrell, Uvalde, Val Verde, Wilson and Zavala.

No. 6. Corpus Christi District, embracing the following counties: Aransas, Bee, Brooks, Cameron, Duval, Hidalgo, Jim Hogg, Jim Wells, Kenedy, Kleberg, Live Oak, McMullen, Nueces, Refugio, San Patricio, Starr, Webb, Willacy and Zapata.

No. 7. Austin District, embracing the following counties: Bastrop, Blanco, Burnet, Caldwell, Hays, Lampasas, Lee, Llano, Travis and Williamson.

No. 8. DeWitt District, embracing the following counties: Calhoun, Colorado, DeWitt, Fayette, Fort Bend, Goliad, Jackson, Lavaca, Matagorda, Victoria and Wharton.

No. 9. Southern District, embracing the following counties: Austin, Brazoria, Burleson, Galveston, Grimes, Harris, Madison, Montgomery, Polk, San Jacinto, Trinity, Waller, Walker and Washington.

No. 10. Southeastern District, embracing the following counties: Angelina, Chambers, Hardin, Jasper, Jefferson, Liberty, Nacogdoches, Newton, Orange, Panola, Rusk, Sabine, San Augustine, Shelby and Tyler.

No. 11. Eastern District, embracing the following counties: Anderson, Cherokee, Freestone, Henderson, Houston, Leon and Smith.

No. 12. Central District, embracing the following counties: Bell, Bosque, Brazos, Coryell, Erath, Falls, Hamilton, Hill, Hood, Johnson, Limestone. McLennan, Milam, Navarro, Robertson and Somervell.

No. 13. Northwestern District, embracing the following counties: Archer, Baylor, Callahan, Clay, Eastland, Haskell, Jack, Jones, Knox, Montague, Palo Pinto, Parker, Shackelford, Stephens, Tarrant, Taylor, Throckmorton, Wichita, Wilbarger Wise and Young.

No. 14. Northern District embracing the following counties: Collin, Cooke, Dallas, Delta, Denton, Ellis, Fannin, Franklin, Grayson, Hopkins, Hunt, Kaufman, Lamar, Rains, Rockwall, Van Zandt and Wood.

No. 15. Northeastern District, embracing the following counties: Bowie, Camp, Cass, Gregg, Harrison, Marion, Morris, Red River, Titus and Upshur.

FIRST OR EL PASO DISTRICT

Dr. Joel Wright, Alpine, Councilor

EL PASO COUNTY MEDICAL SOCIETY

Alexander, M. L., Canutillo.
Arguelles, F. L., El Paso.
Armistead, E. K., El Paso.
Armistead, S. D., El Paso.
Awe, Chester D., (Mil.), El Paso.
Barrett, Frank O., El Paso.
Basom, Wm. C., (Mil.), El Paso.
Bennett, J. T., El Paso.
Black, Arthur P. (Mil.), El Paso.
Branch, W. M., El Paso.
*Breck, Louis W. (Mil.), El Paso.
Britton, Bloyce H. (Mil.), El Paso.
Britton, W. W., El Paso.
Brown, Chas. P., El Paso.
Brunner, George, El Paso.
Butler, Arthur H., El Paso.
Cameron, David M. (Mil.), El Paso.
Carter, Joe C., El Paso.
Causey, E. Grady (Mil.), El Paso.
Cox, Lyman T. (Mil.), El Paso.
Craige, Branch, El Paso.
Cummins, Erwin J., El Paso.
Curtis, Wickliff R. (Mil.), El Paso.
Davis, Wm. J., El Paso.
Deady, Howard P., El Paso.
Duckett, Walter F., El Paso.
Duncan, Ernest A., El Paso.
Dutton, Loraine O., El Paso.
Eck, A. J., El Paso.
Eckhardt, Gus F., El Paso.
Egbert, Orville E. (Pres.), El Paso.
Epstein, I. M. (Mil.), El Paso.
Evans, F. G. (Mil.), El Paso.
Gaddis, Leo R., El Paso.
Gaddy, S. J., El Paso.
Gallagher, Paul (Mil.), El Paso.
Garrett, Henry D., El Paso.
Goodloe, Basil L. (Mil.), El Paso.
Goodwin, Francis C. (Mil.), El Paso.
Gorman, James J., El Paso.
Gray, John B., El Paso.
Green, J. Leighton (Mil.), El Paso.
Gregory, J. M., Anthony, N. Mex.
Hardy, John A., El Paso.
Hart, Maynard S. (Mil.), El Paso.
Hatfield, Haskell D. (Mil.), El Paso.
Hendricks, C. M., El Paso.
Holt, Russell, El Paso.
Homan, Ralph H. (Mil.), El Paso.
Homan, Robt. B., Jr., El Paso.
Hornedo, Manuel D., El Paso.
Hughes, Raymond P. (Mil.), El Paso.
Hunter, C. D. (Mil.), El Paso.
Irvin, Edgar H., El Paso.
Jamieson, W. R., El Paso.
Jenness, Burt F., El Paso.
Jordan, Gerald H. (Mil.), El Paso.
Jumper, C. E., El Paso.
Kearney, Wm. W. (Mil.), El Paso.
Keller, N. H., El Paso.
King, Sam R., El Paso.
Kitterman, P. G., El Paso.
Laws, James W., El Paso.
Leigh, Harry, El Paso.
Liddell, Thos. C., El Paso.
Lombard, Julian, El Paso.
Long, Arthur D., El Paso.
Lynch, Kevin D., El Paso.
Marshall, Alex G., El Paso.
Martin, John D., El Paso.
Mason, C. H., El Paso.
McCamant, T. J., El Paso.
McChesney, Paul E., El Paso.
McNeill, Irving M., El Paso.
*Miller, Felix P., El Paso.
Molloy, M. S., Ysleta.
Morrison, John E., El Paso.
Multhauf, A. W. (Mil.), El Paso.
Murphy, John L., El Paso.
Murray, Mildred L,. El Paso.
Newman, S. H., El Paso.
Pangman, W. John, El Paso.
Petticolas, Jno. D. (Mil.), El Paso.
Price, E. D., El Paso.
*Prothro, W. B., El Paso.
Randel, Brown W. (Mil.), El Paso.
Ravel, Vincent M. (Mil.), El Paso.
Rawlings, J. Mott (Mil.), El Paso.
Rennick, Chas. F., El Paso.
Rhinheimer, E. W., El Paso.
Rigney, Paul, El Paso.
Robbins, Jacob B. (Mil.), El Paso.
Rodarte, Ruben B. (Mil.), El Paso.
Rogde, Jacob, El Paso.
Rogers, Earl B., El Paso.
Rogers, Hugh Earl, El Paso.
Rogers, S. Perry, El Paso.
Rogers, Will P., El Paso.
Schuster, F. P., El Paso.
Schuster, Stephen A., El Paso.
Shannon, Hugh M., El Paso.
Snidow, Francis A. (Mil.), El Paso.
Smith, Leslie M., El Paso.
Soto, Raul C., El Paso.
Spearman, M. P., El Paso.
Spier, Erich, El Paso.
Stephenson, M. L. (Mil.), El Paso.
Stevens, B. F., El Paso.
Stevenson, W. H. (Mil.), El Paso.
Stowe, Jesson L, El Paso.
Swope, Samuel D., El Paso.
Thompson, Ernest B., El Paso.
Thompson, Robt. F., El Paso.
Treece, Angus A., Fabens.
Tucker, George E., Anthony, N. Mex.
Turner, George, El Paso.
Turner, S. T., El Paso.
Turner, Steve F., El Paso.
Vance, James, El Paso.
*Vandevere, W. E., El Paso.
Varner, Harry H., El Paso.
Villareal, Andreas, El Paso.
Villareal, Leopold (Mil.), El Paso.
Von, Almen, S. G., El Paso.
Von Brieson, D. (Mil.), El Paso.
Waite, Willis W. (Hon.), El Paso.
Walker, N. F. (Mil.), El Paso.
Webb, Chas. E. (Mil.), El Paso.
Werley, Gottlieb, El Paso
Wilcox, L. E. (Sec'y), El Paso.

*The asterisk (*) indicates registration at one of the Section Meetings at Austin, Fort Worth or San Antonio, or the House of Delegates session at Dallas.
(In.) indicates Intern membership.
(Hon.) indicates Honorary membership.
(Emer.) indicates Membership Emeritus.
(Mil.) indicates Military membership.

PECOS-JEFF DAVIS-PRESIDIO-BREWSTER COUNTIES MEDICAL SOCIETY

Barrett, Alfred E., Fort Stockton.
Barrett, M. E. (Mil.), Fort Stockton.
Eaton, Calvin E. (Pres.), Fort Davis.
Gipson, F. P., Fort Stockton.
Hill, Malone V. (Mil.), Alpine.
Jeter, Drayton O. (Sec'y), Alpine.
Kelley, W. N., Trelingua.
Lavanture, L. A., Marfa.
Lester, R. E., Sanderson.
Lockhart, W. E. (Mil.), Alpine.
Searles, John P., Marfa.
Worthington, G. W., Marathon.
Wright, Joe E., Alpine.

REEVES-WARD-WINKLER-LOVING-CULBERSON-HUDSPETH COUNTIES MEDICAL SOCIETY

Black, Wilmer D., Barstow.
Camp, Jim (Pres.), Pecos.
Cook, Enoch J., San Angelo.
Kunstadt, Paul, Monahans.
Lindley, Harold, Pecos.

McClure, W. H. (Mil.), Kermit.
Rehmeyer, Walter O., Monahans.
*Roberts, Rufus A. (Sec'y), Pecos.
Robinson, Lila Rose, Kermit.
Robinson, Cecil A., Kermit.
*Starr, Pete J., Pecos.
Wight, B. A. (Mil.), Kermit.
*Wilson, Claude E., Wink.

SECOND OR BIG SPRING DISTRICT

Dr. A. H. Fortner, Sweetwater, Acting Councilor

DAWSON-LYNN-TERRY-GAINES-YOAKUM COUNTIES MEDICAL SOCIETY

Bennett, Jno. B. (Mil.), Lamesa.
Bradford, Andres L., Seagraves.
Daniell, A. H. (Mil.), Brownfield.
Davis, Earl C., Brownfield.
Davis, Julian W. (Mil.), O'Donnell.
Frazier, Sam J., Lamesa.
Gerardy, Carl W. (Mil.), Seagraves.
Hill, Wayne C., Brownfield.
Jacobson, M. E., Amarillo.
*Loveless, J. C., Lamesa.
Loveless, Robt. W. (Mil.), Lamesa.
McSween, Magnus J., Slaton.
Price, Noble H., Lamesa.
Prohl, Emil H., Tahoka.
Richards, L. D., Seminole.
Shepard, O. H., O'Donnell.
Sinclair, James W., Tahoka.
Smith, Alfred H., Lamesa.
Tomb, Andrew S. (Sec'y), Seminole.
Treadway, T. L., Brownfield.
Turner, John R. (Pres.), Brownfield.

ECTOR-MIDLAND-MARTIN-HOWARD-ANDREWS-GLASSCOCK COUNTIES MEDICAL SOCIETY

Absher, Lee A. (Mil.), Midland.
*Barganier, John H. (Pres.), Odessa.
Bennett, Marion H., Big Spring.
Bobo, Thomas C., Midland.
Chapple, James H., Midland.
Collins, Tip M., Big Spring.
*Cowper, Roscoe B. G. (Sec'y), Big Spring.
Devereaux, James M. (Mil.), Midland.
Haley, Jas. F. (Hon.), Midland.
Hall, Granville T., Big Spring.
Hall, Jos. Leslie (Mil.), Stanton.
Headlee, Emmett V., Odessa.
Hestand, Haskell E. (Mil.), Odessa.
*Hogan, John E., Big Spring.
Leggett, Lloyd W., Midland.
Lekisch, Kurt, Midland.
*Malone, Phocian W., Big Spring.
McMahan, George T. (Mil.), Big Spring.
Miller, Garnett, Big Spring.
Ryan, W. E. (Mil.), Midland.
Sanders, Preston R., Big Spring.
Shaw, Chester A., Big Spring.
Thomas Clyde E., Jr. (Mil.), Big Spring.
Thomas, John B., Midland.
True, George S., Big Spring.
Weaver, Glenn S., Big Spring.
Whitehouse, Wm. G., Midland.
Wood, Murray, Andrews.
Wood, George H., Big Spring.
*Woodall, Jack M., Big Spring.

NOLAN-FISHER-MITCHELL COUNTIES MEDICAL SOCIETY

Allen, Robt. R., Sweetwater.
Barb, Thomas J., Roby.
Callan, Chester U., Rotan.
Crymes, J. Melvin, Colorado.
Dowling, Urban J., Sweetwater.
Fortner, Amos H., Sweetwater.
Johnson, Bruce H. (Sec'y), Loraine.
Johnson, J. Frank, Rotan.
Loeb, Sam A. (Mil.), Sweetwater.
Logsdon, Harry A., Colorado.
Peavy, J. E. (Mil.), Sweetwater.
Peters, Roland O. (Mil.), Sweetwater.
P'Pool, Wm. F. (Mil.), Sweetwater.
Richardson, Jas. K. (Mil.), Sweetwater.
Rhodes, Oscar E (Mil.), Colorado.
Rosebrough, Chas. A. (Pres.), Sweetwater.
*Schreiber, John, Sweetwater.
Stubbs, James B. (Mil.), Sweetwater.

SCURRY-DICKENS-KENT-GARZA-BORDEN-KING-STONEWALL COUNTIES MEDICAL SOCIETY

*Cockrell, Chas. Ray, Snyder.
Howell, Robt. L., Snyder.
Howle, Thos. M. (Mil.), Snyder.
Johnson, W. R. (Pres.), Snyder.
Redwine, Harry P. (Mil.), Snyder.
Rosser, H. E. (Sec'y), Snyder.

THIRD OR PANHANDLE DISTRICT

Dr. E. A. Rowley, Amarillo, Councilor

CHILDRESS-COLLINGSWORTH-HALL COUNTIES MEDICAL SOCIETY

Cariker, Fred H., Childress.
Clark, R. Ernest, Memphis.
Garner, J. E., Turkey.
Goodall, O. R., Memphis.
Harper, Jno. W., Wichita Falls.
Jernigan, J. H., Childress.
Jeter, Perry R., Childress.
Jones, Chas. B. (Sec'y), Wellington.
*Jones, Elmer W., Wellington.
Miller, Chas. H., Velasco.
Moss, E. W. (Pres.), Wellington.
*Odom, James A., Memphis.
Townsend, S. H., Childress.
Vardy, P. L., Estelline.
Wattam, James M., Wellington.
White, F. A., Childress.
Wilson, Henry, Memphis.
Wilson, Winfred (Dead), Memphis.

DALLAM-HARTLEY-SHERMAN-MOORE COUNTIES MEDICAL SOCIETY

Brown, Thos. Guy, Dumas.
Cowin, Abe Wilbur (Pres.), Dalhart.
Moore, Victor R. (Sec'y), Dalhart.
Norvell, John W., Stratford.
Reid, Frank I., Dumas.

DONLEY-ARMSTRONG COUNTIES MEDICAL SOCIETY

Carroll, William A., Claude.
Ellis, Thomas H., Clarendon.
*Jenkins, Berry L. (Sec'y), Clarendon.
Jenkins, Oscar L., Dallas.
Stricklin, Calvin G. (Pres.), Clarendon.

GRAY-WHEELER COUNTIES MEDICAL SOCIETY

Ashby, Chas. H., Pampa.
Batson, C. B., McLean.
Beach, Wm. Walter, Shamrock.
Bellamy, R. M. (Mil.), Pampa.
Brown, Richard M., Pampa.
Christian, Paul C., Pampa.
Falkenstein, Richard D., Pampa.
Finley, H. Webb, McLean.
Gilliland, J. O. (Mil.), Pampa.
Gooch, James W., Shamrock.
Gooch, Jas. Oliver (Mil.), Shamrock.
High, Clifton E., Pampa.
Howze, Jo W. (Mil.), Pampa.
Johnson, J. B. (Mil.), Pampa.
Jones W. Calvin, Pampa.
Kelley, Frank W. (Mil.), Pampa.
Kelley, John H., Pampa.
*Nicholson, Harold E., Wheeler.
Nicholson, H. E., Jr. (Mil.), Wheeler.
Overton, M. C., Jr. (Mil.), Shamrock.
Pieratt, Karl W, Pampa.
Purviance, Walter, Pampa.
Shaddix, J. W. (Mil.), Shamrock.
Walker, Glenn R. (Pres.), Wheeler.
Wilder, H. Lawler (Sec'y), Pampa.
Ziegler, Joe, Shamrock.
Ziegler, Paul (Mil.), Shamrock.

HALE-FLOYD-BRISCOE-SWISHER COUNTIES MEDICAL SOCIETY

Bundy, Orville T., Silverton.
Crawford, J. Ed, Tulia.
*Dye, Mary R., Plainview.
*Dye, Everett L. (Mil.), Plainview.
Greere, Neil E., Lockney.
Guest, J. L., Plainview.
Guthrie, Aubrey E., Floydada.
Hall, Grover C., Plainview.
Hansen, J. Harvey, Plainview.
Jones, Don P., Plainview.
Mitchell, Robt. H. (Mil.), Plainview.
Nichols, Everett O., Plainview.
Nichols, Everett O., Jr., Plainview.
Pitts, Donald H., Floydada.
Smith, Edwin W., Plainview.
Smith. Geo. V. (Pres.), Floydada.
Stewart, Evans P., Tulia.
Wayland, Levi C. (Sec'y), Plainview.

HARDEMAN-COTTLE-FORD-MOTLEY COUNTIES MEDICAL SOCIETY

Clark, Hines, Crowell.
*Edmondson, Edward E., Quanah.
Frizzell, Thos. D. (Pres.), Quanah.
George, Jos. M., Quanah.
Hill, Jesse M., Crowell.
Hughes, John F. (Sec'y), Spur.
Lowery, Thos. A., Wichita, Kans.
McDaniel, Robt. R., Quanah.
Pate, Clarence C., Paducah.
Pate, Joe J. (Mil)., Paducah.
Stanley, James S., Matador.
Stover, J. E., Truscot.
Terry, Sam D., Goodlett.
Traweek, Albert C., Matador.
Traweek, Albert C., Jr., Matador.
*Vestal, Earl A., Quanah.

HUTCHINSON-CARSON COUNTIES MEDICAL SOCIETY

Barksdale, William C. (Pres.), Borger.
Bivings, Charles K., Borger.
Brooks, William W., Phillips.
Draper, Leonidas M. (Mil.), Borger.
Gibner, Geo. P., Spearman.
Hamra, Henry M., Phillips.
Hansen, Arthur F., Borger.
Hansen, Lawrence C., Borger.
Kimball, Melvin C., Borger.
Morris, Isaac C., Borger.
*Petty, Lester E., Borger.
Stephens, Milton M. (Sec'y), Borger.
Stephens, Walton G., Borger.
Wallace, Henry G. (Mil.), Borger.

LAMB-BAILEY-HOCKLEY-COCHRAN COUNTIES MEDICAL SOCIETY

*Coen, James R., Littlefield.
Dow, Harold D., Levelland.
Dupre, John D. (Mil.), Levelland.
Green, L. T., Jr., Muleshoe.
Janes, Fred W., Jr., Littlefield.
Lusk, H. N., Levelland.
Patterson, Geo. Tom, Morton.
Payne, Clifford E. (Pres.), Littlefield.
Phillips, C. M. (Mil.), Levelland.
Popplewell, A. L. (Dead), Anton
Shotwell, I. T., Jr. (Sec'y), Littlefield.

LUBBOCK-CROSBY COUNTIES MEDICAL SOCIETY

Arnett, Sam C., Jr. (Mil.), Lubbock.
Barsh, Albert G. (Sec'y), Lubbock.
*Baugh, Wm. L., Lubbock.
Benson, Martin H. (Mil.), Lubbock.
*Blake, Emerson M., Lubbock.
Canon, Robt. T. (Mil)., Lubbock.
Clark, Vester V., Lubbock.
Clarke, Doyce M. (Mil.), Lubbock.
Cross, Denzil D., Lubbock.
*Douglas, R. C. (Mil.), Lubbock.
Dunn, Sam G., Lubbock.
Elkins, Clyde (Mil.), Lubbock.
*English, Otis W., Lubbock.
Ewing, Mahon M., Lubbock.
Fiel, Charles A., Lubbock.
Girdner, Wm. H., Abernathy.
Hand, Orra R., Lubbock.
Hunt, Ewell L., Lubbock.
Hutchinson, B. B. (Mil.), Lubbock.
Hutchinson, James T., Lubbock.
Jenkins, Byron A., Lubbock.
Key, Olan (Pres.), Lubbock.
*Krueger, Julius T., Lubbock.
Lattimore, James P., Lubbock.
Logan, Wm. H., Lubbock.
Loveless J. E. (Mil.), Slaton.
Loveless, Roy G., Dallas.
Malone, Frank B., Lubbock.
Mansell, Christopher (Mil.), Lubbock.
Mast, Henrie E. (Mil.), Lubbock.
*McCarty, Robert H., Lubbock.
Miller, Pauline A., Lubbock.
Overton, Marvin C., Lubbock.
Patterson, Wm. B., Chandler, Ariz.
*Payne, Willam E., Slaton.
Reeser, Wayne (Mil.), Lubbock.
Riddel, Roy L., Jr., Lubbock.
*Rollo, James W., Lubbock.
Snow, Wister C., Ralls.
Standefer, Fred W., Lubbock.
*Stewart, Allen T., Lubbock.
Stiles, James H., Lubbock.
Surman, Arnold C., Post.
Taylor, Otis, Jr., Lubbock.
Wagner, Charles J., Lubbock.
Watkins, Mina D. (Mil.), Lubbock.
Williams, David C., Post.
Wilson, James D (Mil.), Lubbock.
Woods, Lemmie B., Lubbock.

POTTER COUNTY MEDICAL SOCIETY

Aronson, Sam J. R. (Mil.), Amarillo.
Black, R. P. (Mil.), Amarillo.
Blackwell, Ben T. (Mil.), Amarillo.
Broyles, Sam K., Amarillo.
Carroll, Jas. R. (Mil.), Amarillo.
Churchill, T. P., Amarillo.
Crume, J. J., Amarillo.
Crumley, Fred J., Amarillo.
Cultra, George M., Amarillo.

Dine, Wm. Clay (Mil.), Amarillo.
Duncan, Frank B. (Mil.), Amarillo.
Duncan, Robert A., Amarillo.
Flamm, Kenneth R. (Mil.), Amarillo.
*Fuller, Martin L., Amarillo.
Gilkerson, Nan L. (Sec'y), Amarillo.
Gist, R. D., Amarillo.
Goldston, Alton B. (Mil.), Amarillo.
Gustin, Jas. W. (Mil.), Amarillo.
Haugen, Ingvaid J., Amarillo.
Hendrick, Jas. W., Amarillo.
Jordaan, J. D., Amarillo.
Keys, Richard, Amarillo.
*Klingensmith, Wm. R. (Pres.), Amarillo.
Knight, Melvin K (Mil.), Amarillo.
Latson, Harvey H. (Mil.), Amarillo.
*Lemmon, J. R., Amarillo.
Loving, Dan H. (Mil.), Amarillo.
Lumpkin, S. Hugh (Mil.), Amarillo.
Marclay, David (Mil.), Amarillo.
Marsalis, Don S., Amarillo.
Murphy, Weldon O. (Mil.), Amarillo.
Ozier, J. B., Amarillo.
Patton, Louis K., Amarillo.
Payne, Ralph B. (Mil.), Amarillo.
Powers, Evelyn G., Amarillo.
Powers, Geo. L., Amarillo.
Prince, Norman C., Amarillo.
Puckett, Bascom M., Amarillo.
Puckett, Howard E. (Mil.), Amarillo.
Rasco, Isaac, Amarillo.
Reeves, Ernest E. (Mil.), Amarillo.
Roach, D. (Hon.), Amarillo.
Robberson, Jason H., Amarillo.
*Rowley, E. A., Amarillo.
Royse, Geo. T. (Mil.), Amarillo.
Shudde, Wm. J. (Mil.), Amarillo.
Smith, G Ernestine, Amarillo.
*Streit, August J., Amarillo.
Swindell, Raymond R., Amarillo.
Thomas, Wm. B., Amarillo.
VanSweringen, Walter, Amarillo.
Vaughan, John H., Amarillo.
Vineyard, Roy L., Amarillo.
*Vineyard, Geo. T., Amarillo.
Waddill, Geo. M., Amarillo.
*Wertz, Royal F. (Mil.), Amarillo.
Wheir, Wm. Hugh (Mil.), Amarillo.
White, Jesse B., Amarillo.
Winsett, A. E., Amarillo.
Wrather, James R., Amarillo.

RANDALL-DEAF SMITH-PARMER-CASTRO-OLDHAM COUNTIES MEDICAL SOCIETY

Barnett, Lewis B. (Mil.), Hereford.
Clark, David W. (Hon.), Vega.
Cogswell, Ronald E. (Sec'y), Dimmitt.
Donnell, Chas. E., Canyon.
Jarrett, Robt. P., Canyon.
Johnson, V. Scott, Farwell.
Loyd, Oscar H., Vega.
Miller, Mayes (Pres.), Dimmitt.
Neblett, Robt. A. (Mil.), Canyon.
Robison, Dutch K., Dumas.
Wills, Ralph R., Hereford.

FOURTH OR SAN ANGELO DISTRICT

Dr. R. E. Windham, San Angelo, Councilor.

BROWN-COMANCHE-MILLS-SAN SABA COUNTIES MEDICAL SOCIETY

Allen, Homer B., Brownwood.
Allen, Will L., Brownwood.
Bullard, Chester C., Brownwood.
Burns, Edward J., Bangs.
Cadenhead, Ernest F., Brownwood.
*Campbell, James M., Goldthwaite.
Carrigan, T. A. (Mil.), Brownwood.
Daughety, Jewel, Brownwood.
Farley, F. W. (Mil.), San Saba.
*Felts, Richard C., San Saba.
Gray, Andrew J., Comanche.
*Gray, Charles W., Comanche.
Hallum, Roy G. (Pres.), Brownwood.
Horn, Jesse M., Brownwood.
Hughes, Sidney W. (Mil.), Brownwood.
*Kelley, Charles W., Brownwood.
Lobstein, Henry L., Brownwood.
Locker, Harry L. (Sec'y), Brownwood.
Mayo, Oscar N. (Mil.), Brownwood.
McFarlane, Joe R., Brownwood.
Ory, Lee K. (Mil.), Comanche.
Pence, W. S., San Saba.
Reaves, Dorothy P., Brownwood.
Scott, David R., Brownwood.
Shelton, Ben M., Brownwood.
Stephen, James J., Goldthwaite.
Walker, J. B. N. (Mil.), Brownwood.

COLEMAN COUNTY MEDICAL SOCIETY

Aston, Samuel N., Coleman.
Bailey, Robert, Coleman.
Burke, Francis M., Coleman.
Cochran, Robert H. (Pres.), Coleman.
Lovelady, Roy R. (Mil.), Santa Anna.
Moody, Chas. O. (Mil.), Coleman.
McDonald, Earl D., Santa Anna.
Nichols, John M., Coleman.
Weaver, Manly E. (Mil.), Coleman.
Young Josephus C. (Sec'y), Coleman.

CRANE-UPTON-REAGAN COUNTIES MEDICAL SOCIETY

Birdsong, Wm. F., Amherst.
Bredehoft, J. C., Rankin.
Cooper, James L. (Pres.), McCamey.
Pattison, J. F., Big Lake.
*Robinson, S. F. (Sec'y), Crane.

KIMBLE-MASON-MENARD-McCULLOCH COUNTIES MEDICAL SOCIETY

Alcorn, Robt. S., Menard.
Anderson, James P., Colorado Springs, Colo.
Anderson, James S., Brady.
Baze, P. A., Mason.
Granville, J. B., Brady.
Hanus, J. J., Chillicothe, Ohio.
Hays, Aaron R., Brady.
Hinchman, A. W., Brady.
Huff, Oscar, Mason.
*Jordan, Dowell W. (Pres.), Brady.
Land, W. M., Lohn.
Leggett, J. A., Menard.
McCall, John G., Brady.
McCollum, G. G. (Mil.), Mason.
McCollum, Floyd L. (Mil.), Mason.
Moss, E. Bruce, Junction.
Ricks, Glenn H. (Sec'y), Brady.

RUNNELS COUNTY MEDICAL SOCIETY

Bailey, Charles F. (Sec'y), Ballinger.
Barron, John L., Winters.
Chandler, Oren H., Ballinger.
Dixon, J. W. (Pres.), Winters.
Hale, Frank M., Ballinger.
Halley, Wm. B., Ballinger.
Jennings, T. V., Winters.
Lasater, Oran R., Ballinger.
Macune, John W., Ballinger.
Shiller, John J., Rowena.

TOM GREEN-COKE-CROCKETT-CONCHO-IRION-STERLING-SUTTON-SCHLEICHER COUNTIES MEDICAL SOCIETY

Anderson, Hiram M. (Mil.), San Angelo.
Anderson, Wilson D., San Angelo.
Arledge, Robt. M. (Mil.), San Angelo.
Bernard, R. C., Sanatorium.
Brown, Brian T. (Mil.), San Angelo.
Brown, Walter C., Sanatorium.
Bunyard, Joseph A., San Angelo.
Bush, Wm. L. (Mil.), San Angelo.
Carbrey, Thos. F., San Angelo.
Chaffin, J. B. (Dead), San Angelo.
Cobb, Walton W., San Angelo.
Donaldson, Jas. M., Jr., Sanatorium.
*Doss, James M., Edinburg.
Everitt, W. B. (Hon.), Fostoria.
Finks, Robt. M., San Angelo.
Fowler, David D. (Hon.), Paint Rock.
Griffith, Jos. K., Robert Lee.
Hartig, Otto J., San Angelo.
Helbring, Arlington, Barnhart.
Hess, David L., San Angelo.
Hickman, H. E., San Angelo.
Hixson, Jesse S., San Angelo.
*Hixson, Wm. C., San Angelo.
Howell, John F., Sonora.
Husbands, Thos. L., San Angelo.
Hutchins, Leon F., San Angelo.
Jones J. Frank, San Angelo.
Keyes, Claud T., San Angelo.
Kunath, Carl A. (Mil.), San Angelo.
*Lewis, Aubery L., San Angelo.
*Lewis, Geo. L., San Angelo.
Mays, Chas. E. (Hon.), San Angelo.
*McAnulty, Jas. P., San Angelo.
McCullough, David, Sanatorium.
McGee, Aubrey S. (Mil.), San Angelo.
*McIntire, Floyd T., San Angelo.
*McKnight, Jos. B., Sanatorium.
Mee, Edmond L., San Angelo.
Mitchell, W. Grady (Mil.), San Angelo.
*Nesrsta, Geo. L., Ozona.
Nibling, Geo. W., San Angelo.
Oakes, Milton C. (Mil.), San Angelo.
Pearson, Glen T., Texon.
Powers, Rufus L, San Angelo.
*Rape, J. Marvin (Pres.), San Angelo.
Reser, Wayne A., Sanatorium.
Round, Kye B., San Angelo.
Samuel, Howell C., Sanatorium.
*Schulkey, Wm. E., San Angelo.
*Schulze, Victor E. (Sec'y), San Angelo.
Sessums, John R., San Angelo.
Sessums, John V. (Mil.), San Angelo.
Shelton, Joel (Mil.), Sonora.
*Smith, Jerome H., San Angelo.
*Strauss, Ed H., Eden.
Sutton, Dewey, San Angelo.
Swann, Wm. J., Sterling City.
Tandy, Hugh B. (Mil.), Ozona.
Tester, Lewis K. (Mil.), San Angelo.
Wall, D. D. (Mil.), San Angelo.
*Wiig, Laurence M., San Angelo.
*Windham, Robt. E., San Angelo.
Womack, Clifford T., San Angelo.
Woodward, Lewis O. (Mil.), San Angelo.
Yates, General M. (Hon.), San Angelo.

FIFTH OR SAN ANTONIO DISTRICT

Dr. C. E. Scull, San Antonio, Councilor.

ATASCOSA COUNTY MEDICAL SOCIETY

Irwin, C. M., Charlotte.
Joyce, Walter H., Lytle.
Mann, Robt. E. (Sec'y), Pleasanton.
Payne, John H., Jourdanton.
Shotts, C. C. (Mil.), Pleasanton.
Ward, Jeremiah, Jr., Poteet.
Ware, T. P. (Pres.), Poteet.
Youngblood, R. C., Pleasanton.

BEXAR COUNTY MEDICAL SOCIETY

*Adelman, Jack A., San Antonio.
Aderhold. James P. (Mil.), San Antonio.
Alexander, C. B., San Antonio.
Allen, S. W., San Antonio.
Allin, Fred A., San Antonio.
Allin, Willis W. (Mil.), San Antonio.
Altgelt, Daniel D. (Mil.), San Antonio.
Anderson, James L., San Antonio.
Applewhite, Scott C., San Antonio.
Arendt, E. J., San Antonio.
Ashley, Richard W. (Mil.), San Antonio.
Atmar, R. C, (Mil.), San Antonio.
Bannister, M. H. (Mil.), San Antonio.
*Baranco, Mildred W., San Antonio.
Barbato, Lewis (Mil.), San Antonio.
Barnett, John S. (Mil.), San Antonio.
Barton, Julian C., San Antonio.
*Bates, LeRoy E., San Antonio.
*Beach, Asa., San Antonio.
Beal, Albert R., San Antonio.
Beck, Emma, San Antonio.
Berchelmann, Adolphus,, San Antonio.
Bergfeld, Jack A. (Mil.), San Antonio.
Bernfield, Helen-Cannon. San Antonio.
*Bernfield, Martin, San Antonio.
*Biggar, J. H., San Antonio.
Bloom, Bernard H. (Mil.), San Antonio.
Boccelato, S. L., San Antonio.
Boehs, Chas. J., San Antonio.
Bondurant, W. W., Jr. (Mil.), San Antonio.
Bonnett, Edith M., San Antonio.
Borsheim, Raymond S. (Mil.), San Antonio.
Bose, von Edda, San Antonio.
*Boso, Fred M., San Antonio.
Bosshardt, C. E. (Mil.), San Antonio.
Bowen, P. G., San Antonio.
*Bowen, Robert E., Sr., San Antonio.
Bowen, Robt. E., Jr. (Mil.), San Antonio.
Boyd, G. D. (Mil.), San Antonio.
Brittain, Ruth, San Antonio.
Bronson, A Scott, San Antonio.
Brown, A. A., San Antonio.
Burg, Edward M., San Antanio.
Burg, Sigmund S. (Hon.) Houston.
Burk, W. E., San Antonio.
*Burleson, John H., San Antonio.
*Bush, Howard M., San Antanio.
Butler, Thos. B. (Mil.), San Antonio.
*Cade, Charles C., San Antonio.
Cade, Wm. H., San Antonio.
Calder, Royall M., San Antonio.
Callan, John R., San Antanio.
Calvert, Hulon E. (Mil.), San Antonio.
Carnahan, Robt. G., Denver, Colo.
*Cassity, J. C., San Antonio.
*Cayo, E. P., San Antonio.
Cayo, Edward A., San Antonio.
Celaya, Henry, San Antonio.
*Champion, A. N., San Antonio.
*Chankin, Edgar D., San Antonio.
Childers, M. A., Jr. (Mil.), San Antonio.
Christian, Thos. E., San Antonio.
Clark, A. F., Jr. (Mil.), San Antonio.
Clark, A. Fletcher, San Antonio.
Clark, James W. (Mil.), San Antonio.
Clifton, Collis B., San Antonio.

Coates, Elmer T. (Mil.), San Antonio.
Cochran, J. L. (Mil.), San Antonio.
*Cook, Clara G., San Antonio.
*Cooper, Elmer E., San Antonio.
Cooper, Fred B. (Mil.), San Antonio.
Cooper, Jean Head, San Antonio.
Cooper, Melbourne J., San Antonio.
Copeland, Jos. B., San Antonio.
*Cornick, Geo. B., San Antonio.
Cotham, C. M., San Antonio.
Cowles, Andres G. (Mil.), San Antonio.
*Coyle, Edward W. (Mil.), San Antonio.
Crain, Chas. E. (Mil.), San Antonio.
Cresswell, Thos. A. (Mil.), San Antonio.
*Crockett, R. H., San Antonio.
Culli, Geo. O., San Antonio
*Cutter, Irving T., San Antonio.
*Davis, Milton, San Antonio.
Delagoa, Arthur C., San Antonio.
DeLeon, John Jos., San Antonio.
*DePew, E. V., San Antonio.
Dittman, Chas. H., San Antonio.
*Donop, Perry T., San Antonio.
Dorbandt, Moss M., San Antonio.
*Dorbandt, Thos. M., San Antonio.
Dreiss, A. M., San Antonio.
Dufner, Ronnie M. (Mil.), San Antonio.
Dumas, Edward D., San Antonio.
Edwards, Douglas, San Antonio.
Ellis, Sam., San Antonio.
Evans, E. O. (Dead), San Antonio.
Farmer, W. C. (Hon., (Dead), San Antonio.
Fetzer, Wm. J., San Antonio.
Folbre, Thos. W. (Mil.), San Antonio.
Forbes, M. A., San Antonio.
French, Jack A. (Mil.), San Antonio.
Fultz, B. Hugh, San Antonio.
Galloway, B. E., San Antonio.
Garnett, Walter L., Mexico City, Mex.
Garren, John T. (Mil.), San Antonio.
Geissler, Wallace H. (In.), San Antonio.
Gerodetti, O. F. (Mil.), San Antonio.
*Geyer, Geo. H., San Antonio.
Giesecke, Carl G. (Mil.), San Antonio.
Gilbreath, S. Frank, San Antonio.
*Giles, Roy G., San Antonio.
*Gill, Wm. D., San Antonio.
*Gleckler, John D. (Mil.), San Antonio.
Glober. Lee J., San Antonio.
Goeth, Carl F. (Mil.), San Antonio.
Goeth, Richard A., San Antonio.
Goetz, Jos. T. (Mil.), San Antonio.
Gonzales, H. N. (Mil.), San Antonio.
*Goode, John W., San Antonio.
Goodson, Thomas N., San Antonio.
Gordon, Marie D., San Antonio.
Gossett, R. F. (Mil.), San Antonio.
Gough, H. W., San Antonio.
*Graves, Amos M., Jr., San Antonio.
Graves, W. E., San Antonio.
Haggard, Chas. H., San Antonio.
Haggard, Frank N., San Antonio.
Hargis, W. Huard (Mil.), San Antonio.
Hargis, W. Huard, Jr., (Mil.), San Antonio.
Hairston, J. Thomas, San Antonio.
Harper, Mary C. (Hon.), San Antonio.
Hartman, Albert W. (Mil.), San Antonio.
Hartman, Henry C., San Antonio.
Heck, W. H. (Mil.), San Antonio.
Helfer, Lewis M. (Mil.), San Antonio.
Henry, C. D. (Mil.), San Antonio.
Henry, Mary M., San Antonio.
Herff, Adolph, Boerne.
*Herff, Augustus F., San Antonio.
Herff, Ferdinand P., San Antonio.
Herff, John B., San Antonio.
Hill, Lucius D., Jr., San Antonio.
Hill, W. Herbert (Mil.), San Antonio.
Holshouser, Chas. A. (Mil.), San Antonio.
*Horton, Geo. W., San Antonio.
*Hoskins, Henry R., San Antonio.
Howerton, Ernest E. (Mil.), San Antonio.
Hudson, Granville W. (Mil.), San Antonio.
Hunt, Kent N. (Mil.), San Antonio.
*Jackson, Dudley, San Antonio.
*Jackson, L. B., San Antonio.
Jackson, L. Walford, San Antonio.
Jackson, Martha Beal, San Antonio.
Jensen, Andrew M. (Mil.), San Antonio.
Jensen, Martin H., San Antonio.
Johnson, Harry McC., Jr., San Antonio.
Johnson, Max E. (Mil.), San Antonio.
Johnson, W. J., San Antonio.
Judkins, O. H., San Antonio.
*Kahn, I. Stanley, San Antonio.
Kaliski, Sidney R. (Mil.), San Antonio.
Kasten, Leona, San Antonio.
Keating, Peter M. (Mil.), San Antonio.
Kelley, Cole, San Antonio.
Kenney, Nat M., San Antonio.
King, Albert C. (Mil.), San Antonio.
*King, W. A., San Antonio.
Kitowski, C. B., San Antonio.
Kliefoth, Frederick H., San Antonio.
Koerth, Charles J., Junction.
*Kopecky, Joseph, San Antonio.
*Kopecky, Leon C., San Antonio.
Kupper, Roland C. (Mil.), San Antonio.
Lampe, Juliet H., San Antonio.
Lampe, Margaret R., San Antonio.
Lehmann, C. Ferd (Mil.), San Antonio.
*Leopold, Hanry N., San Antonio.
Letteer, Clarence R. (Mil.), San Antonio.
Livingston, Chas. S. (Mil.), San Antonio.
Lochte, E. R., San Antonio.
Lowry, S. T., San Antonio.
Lozano, Rafael, San Antonio.
Luedemann, Waldo S. (Mil.), San Antonio.
Lundgren, Rupert W. (Mil.), San Antonio.
*Lyon, Ervin F., Jr. (Mil.), San Antonio.
McComb, Asher R. (Mil.), San Antonio.
McCorkle, R. G., San Antonio.
McCurdy, M. W. (Mil.), San Antonio.
McDaniel, Alfred C., San Antonio.
*McGehee, Chas. L., San Antonio.
*McIntosh, John A., San Antonio.
McPeak, Edgar M. (Mil.), San Antonio.
Magrish, Philip (Mil.), San Antonio.
*Manhoff, Louis J., San Antonio.
Martin, Frank M. (Mil.), San Antonio.
Martinez, Jos. J., San Antonio.
Matthaei, Pearl V., San Antonio.
Matthews, John L. (Mil.), San Antonio.
Maxwell, Ernest A. (Mil.), San Antonio.
*Maxwell, W. Wortham, San Antonio.
May, Lester M. (Mil.), San Antonio.
*Merrick, Edward H., San Antonio.
*Milburn, Conn L., San Antonio.
*Milburn, Kennedy A., San Antonio.
Mileau, Alexander, Jr., San Antonio.
Miller, John B., Jr., San Antonio.
Miller, John B., Sr., San Antonio.
*Miller, Robt. A., San Antonio.
*Minter, Merton M., San Antonio.
*Moore, John M., San Antonio.
*Moore, O. S., San Antonio.
Moore, S. Foster, Jr. (Mil.), San Antonio.
Moorehead, Wm. H. (Mil.), San Antonio.
Morgan, John B., San Antonio.
Mozerzky, Victor (Mil.), San Antonio.
Mueller, Edwin L., San Antonio.
Muldoon, W. E., San Antonio.
Nesbit, Wm. E. (Dead), San Antonio.
*Nicholson, J. R., San Antonio.
Nisbet, Alfred A. (Mil.), San Antonio.
*Nixon, J. W., San Antonio.
*Nixon, P. I., San Antonio.
Novak, J. J. (Mil.), San Antonio.
Novak, Lumir F. (Mil.), San Antonio.
Nunn, J. A., San Antonio.
*O'Brien, Minnie C., San Antonio.
*Ogilvie, H. H., San Antonio.
Orlando, A. M. (Mil.), San Antonio.
Oxford, Marvin B. (Mil.), San Antonio.
Pagenstecher, Gustav A., San Antonio.
Palmer, Jos. W. (Mil.), San Antonio.
Parker, T. T., San Antonio.
*Parrish, Robt. E., San Antonio.
Parsons, John C., San Antonio.
Parsons, W. H., San Antonio.
Partain, Jack M. (Mil.), San Antonio.
Partain, R. A., San Antonio.
Paschal, Frank L., San Antonio
*Paschal, Geo. H., San Antonio.
*Passmore, B. H., San Antonio.
Passmore, Glenn G. (Mil.), San Antonio.
Pawelek, Vincent S. (Mil.), San Antonio.
Phelps, Gardner D. (Mil.), San Antonio.
*Pickett, Britton E., Jr., San Antonio.
Pinson, C. C., San Antonio.
Pipkin, J. Lewis, San Antonio.
Pomerantz, Robt. B. (Mil.), San Antonio.
Poth, Duncan O., San Antonio.
*Potthast, Otto J., San Antonio.
*Pressly, Thos. A., San Antonio.
Pridgen, John L., San Antonio.
Pritchett, A. Belvin, San Antonio.
Pyterek, Arthur B. (Mil.), San Antonio.
Rabel, John E., San Antonio.
Ramsdell, M. A., San Antonio.
Reily, Wm. A., San Antonio.
Reinarz, Berthold H. (Mil.), San Antonio.
Reuter, Ernest G., San Antonio.
Reveley, Hugh Price, San Antonio.
Reveley, James E. L., San Antonio.
Rhea, Robt. L., Jr. (Mil.), San Antonio.
Rice, Lee (Mil.), San Antonio.
Ritch, Allen (Mil.), San Antonio.
*Roan, Omer, San Antonio.
*Roberts, R. A., San Antonio.
*Robertson, Wilbur F., San Antonio.
Rogers, Albert M. (Mil.), San Antonio.
Rosebrough, F. H., San Antonio.
Rosenzweig, Milton M., San Antonio.
*Ross, Lloyd I., San Antonio.
*Ross, Rex R., San Antonio.
Russ, Stirling E. (Mil.), San Antonio.
*Russ, W. B., San Antonio.
Russell, Dan A., San Antonio.
Rutherford, Lafe, San Antonio.
Sacks, David R. (Mil.), San Antonio.
Saegert, August H, (Mil.), San Antonio.
Saenz, Daniel, San Antonio.
Salter, John J. (Mil.), San Antonio.
*Sample, Roy O., San Antonio.
Schattenberg, Herbert J., San Antonio.
Schlecte, Marvin C. (Mil.), San Antonio.
Schorr, Arthur M., San Antonio.
Schwartzberg, Sam (Mil.), San Antonio.
Scott, Raymond E. (Mil.), San Antonio.
*Scull, C. E., San Antonio.
*Severance, Alvin O., San Antonio.
Shafer, Norman S., Laredo.
Sharp, Thomas H., San Antonio.
Shaw, Thad, San Antonio.
Shepherd, W. F., San Antonio.
*Shipman, E. D., San Antonio.
Skinner, Ira Clifton, San Antonio.
Skripka, Charles F., San Antonio.
Slayter, James E., San Antonio.
Smith, Bernard F., San Antonio.
Smith, John M., Jr. (Mil.), San Antonio.
Soma, Yone, San Antonio.
Sparks, John E., San Antonio.
Stansell, Paul Q. (Mil.), San Antonio.
Stanton, Wm. P. (Mil.), San Antonio.
Steed, P. Frank, San Antonio.
*Steinberg, F. W. (Mil.), San Antonio.
Stevenson, Roger S. (Mil.), San Antonio.
Stieler, Albert, San Antonio.
*Stout, B. F., San Antonio.
Sturm, Chas. E., Jackson, La.
*Stuck, Walter G., San Antonio.
Sutton, Robt. S., Jr. (Mil.), San Antonio.
Sweet, Horace C., San Antonio.
Swinny, Boen (Mil.), San Antonio.
Sykes, Edwin M., Jr. (Mil.), San Antonio.
Sykes, E. Meredith, Sr., San Antonio.
Taylor, C. W., San Antonio
Templeton, R. D., San Antonio.
Tennison, C. W. (Mil.), San Antonio.
Thomas, Robt. P. (Mil.), San Antonio.
Thorner, Rosalind S., San Antonio.
Timmins, O. H., San Antonio.
Todd, David A. (Mil.), San Antonio.
Trevino, Saul S. (Mil.), San Antonio.
Tucker, Victor C. (Mil.), San Antonio.
Tullos, Hugh S., San Antonio.
Urrutia, Adolfe (Mil.), San Antonio.
Urrutia, Aureliano, Sr., San Antonio.
Urrutia, Carlos, San Antonio.
*Venable, Chas. S., San Antonio.
*Venable, J. Manning, San Antonio.
Waller, Edward P. (Mil.), San Antonio.
Walker, Carl Jerome, San Antonio.
Walthall, Walter (Mil.), San Antonio.
Watt, G. Graham (Hon.), San Antonio.
Watts, J. A., San Antonio.
*Weatherford, E. W., San Antonio.
Weatherford, Jack M. (Mil.), San Antonio.
Webb, John B., Jr., San Antonio.
Weiss, Victor J. (Mil.), San Antonio.
Wessels, Andrew, San Antonio.
Whiteacre, F. Stanley, San Antonio.
Wiesner, Wm. A. (Mil.), San Antonio.
Willerson, Eleanor T., San Antonio.
Willerson, Wm. D., San Antonio.
Williams, V. H., San Antonio.
Wilson, Francis W. (Mil.), San Antonio.
Winter, John W. (Mil.), San Antonio.
Wolf, W. M., San Antonio.
Wolf, Wm. M., Jr. (Mil.), San Antonio.
Worsham, John W. (Mil.), San Antonio.
Wyatt, Byron W. (Mil.), San Antonio.
Yeager, Franklin W. (Mil.), San Antonio.
Zink, Pearl Louise, San Antonio.

COMAL COUNTY MEDICAL SOCIETY

Alverson, Donald R. (Mil.), New Braunfels.
*Bergfeld, Arthur Wm. C., New Braunfels.
Frueholz, Bertha (Sec'y), New Braunfels.
Frueholz, Frederick, New Braunfels.
Hagler, Menan Clyde, New Braunfels.
Hinman, Alexander John, New Braunfels.
Karbach, Hylman E. (Mil.), New Braunfels.
Wright, Rennie (Pres.), New Braunfels.

GONZALES COUNTY MEDICAL SOCIETY

Cogburn, C. C. (Sec'y), Nixon.
Elder, N. A., Nixon.
*Holmes, George, Gonzales.
Parr, Andrew B., Gonzales.
Stahl, L. J. (Pres.), Gonzales.
Sievers, Walter A. (Mil.), Gonzales.
Wilhite, Geo. W., Gonzales.

GUADALUPE COUNTY MEDICAL SOCIETY

Davis, Hugh L., Seguin.
Douthett, Jas. C. B. (Pres.), Seguin.
Heinen, Allen I., Seguin.
Knolle, R. L., Seguin.
Knolle, R. L., Jr. (Mil.), Seguin.
Mannheimer, Ilse H. (Sec'y), Seguin.
Mannheimer, W. H. (Mil.), Seguin.
Poth, Norman A., Seguin.
Randolph, Vivien P., Schertz.
Williams, Jesse B. (Mil.), Seguin.

KARNES-WILSON COUNTIES MEDICAL SOCIETY

Archer, Cullen W., Floresville.
Blake, Jno. V. (Mil.), Floresville.
Bonstetter, Harold J., Kenedy.
Kent, Chas. M. (Pres.), Kenedy.
King, Stephen A., Karnes City.
Martin, Robt. G., LaVernia.
Oxford, Jerry W. (Sec'y), Floresville.
Quillian, Causey C. (Mil.), Kenedy.
Shannon, S. E. (Mil.), Karnes City.
Tritt, Earl F., Austin.
Ware. Ella, Stockdale.

KERR-KENDALL-GILLESPIE, BANDERA COUNTIES MEDICAL SOCIETY

Birt, John B., Woodman, Colo.
Black, Axel J., Kerrville.
Butler, James Oscar, Bandera.
Coulter, Wm. W., Jr., Houston.
Curtis, Ward C., Kerrville.
Domingues, Polycarp J., Kerrville.
Feller, Lorence W., Fredericksburg.
Fickessen, Wm. R., Kerrville.
Fowler, James L., Ingram.
Gallatin, Herbert H., Kerrville.
*Gregg, Wm. Earl, Kerrville.
*Harzke, Otto F., Comfort.
Jackson, John Dee (Sec'y), Kerrville.
Jones, Chas. C., Comfort.
*Jones, Chas. C., Jr. (Mil.), Comfort.
Keidel, Victor, Fredericksburg.
Keyser, Lester L. (Pres.), Fredericksburg.
*Knapp, Dwight R., Kerrville.
Matthews, C. B. (Mil.), Kerrville.
McClellan, Clarence L., Kerrville.
Miller, Sidney (Mil.), Legion.
Nooe, John F., Boerne.
Packard, D. E. (Mil.), Kerrville.
Perry, James H., Fredericksburg.
Pfeiffer, H. G. (Mil.), Fredericksburg.
Swayze, Henry Y., Kerrville.
*Thompson, Samuel E., Kerrville.
*Wiedeman, J. E., Junction.

LA SALLE-FRIO-DIMMITT COUNTIES MEDICAL SOCIETY

Barnard, W. L., Carrizo Springs.
*Beall, Judson E., Pearsall.
Beall, Wendell E. (Mil.), Pearsall.
Cook, John A., Cotulla.
Crawford, J. M. (Mil.), Carrizo Springs.
Fay, Harold W., Dilley.
*Goodnight, Jas. E., Pearsall.
Howard, Elmer M. (Pres.), Pearsall.
*Lindley, Calvin D., Carrizo Springs.
Lightsey, John N., Cotulla.
*Pickett, Britton E., Sr. (Sec'y), Carrizo Springs.
Williamson, Levi C., Pearsall.
Woods, G. S., Devine.

MEDINA-UVALDE-MAVERICK-VAL VERDE-TERRELL-EDWARDS-REAL-KINNEY-ZAVALA COUNTIES MEDICAL SOCIETY

*Cox, Geo. W., Austin.
Crossley, S. W., Del Rio.
Cunningham, Geo. B., Uvalde.
Donaldson, Elizabeth, Del Rio.
Eads, Ray A. (Mil.), Uvalde.
Fielder, Darwin L., Uvalde.
Gates, Elles F., Eagle Pass.
Graham, R. N., Del Rio.
Johnson, Thos. M., Del Rio.
King, Otis, La Pryor.
La Forge, Hershall, Uvalde.
*McWilliams, W. R., Del Rio.
Meredith, W. P., Del Rio.
Merritt, Geo. H. (Sec'y), Uvalde.
Montemayor, Raul M., Eagle Pass.
Poindexter, Cary A., Crystal City.
Rodriguez, Simon, Del Rio.
Ross, Horace B., Del Rio.
Sanders, Joe I., Del Rio.
Schulze, E. C., Del Rio.
Smith, W. H., Albuquerque, N. Mex.
Smith, Wm. Arthur, Austin.
Tiner, Edgar L., Crystal City.
*Utterback, Alvin P. (Pres.), Brackettville.
Wood, Earl U., Sabinal.
Wood, Norman I., Uvalde.
Wood, Sterling C., Uvalde.
Williams, James D., Castroville.
York, D. A., Del Rio.

SIXTH OR CORPUS CHRISTI DISTRICT

Dr. J. G. Webb, Mercedes, Councilor.

BEE-LIVE OAK-McMULLEN COUNTIES MEDICAL SOCIETY

Edmondson, Jno. W., Beeville.
*Gipson, Carie D., Three Rivers.
Kirkland, Luman W. (Pres.), Beeville.
Lancaster, Howard E. (Mil.), Beeville.
McNeill, Scott E., Beeville.
Miller, Ernest E. (Mil.), Beeville.
Payne, P. M., Beeville.
Poff, Claud M., Tuleta.
Reagan, Tom B. (Sec'y), Beeville.
Sansom, Geo. W., George West.
Williamson, Chas. D., Three Rivers.

BROOKS-DUVAL-JIM WELLS COUNTIES MEDICAL SOCIETY

Atkinson, Newell W., Alice.
Bartlett, Glenn, Sr., Falfurrias.
Bartlett, Glenn, Jr., Falfurrias.
Duran, C. Armando, Victoria.
Joseph, Phillp S. (Pres.), Alice.
Kerr, George S., Alice.
Otken, Charles H., Falfurrias.
Puckett, Hal H. (Dead), Alice.
Spann, R. Gayle, Freer.
Thomas, James H., Freer.
Wyche, George G. (Sec'y), Alice.

CAMERON-WILLACY COUNTIES MEDICAL SOCIETY

Allen, Geo. Earle, Harlingen.
Amidon, Charles S., Harlingen.
Amidon, Vivien M., Harlingen.
Andrews, Thos. P., Brownville.
Ashcraft, E. Jeff, Harlingen.
Baden, Erwin E. (Mil.), Raymondville.
Beech, Geo. D., Rio Hondo.
Bennack, Geo. E. (Mil.), Raymondville.
Bleakney, Phil A., Harlingen.
Breeden, Roy F., Brownsville.
Caldeira, Frederick D., Harlingen.
Calderoni, F. F. (Mil.), Brownsville.
Carranza, Enrique M., Brownsville.
Casey, James D. (Mil.), San Benito.
Cash, Clarence M., San Benito.
Cole, Benjamin L., Brownsville.
Dashiel, Geo. R. (Mil.), Brownsville.
Davidson, Noah A., Harlingen.
Dawson, Calvin D., San Benito.
*Deaton, D. Grady, San Benito.
*Eisaman, Ralph H., Brownsville.
Feener, Lester C. (Mil.), Harlingen.
Gallaher, Geo. L., Harlingen.
Harris, Wyly H., Raymondville.
Harrop, Leon L., Raymondville.
Hawkins, Beatrice W., Brownsville.
Heins, Otto H., Lyford.
Kinder, Thurman A. (Mil.), Brownsville.
Lamm, Annie T., La Feria.
Lamm, Heinrich, La Feria.
La Motte, Thos. J., Harlingen.
Lawrence, Oscar V., Brownsville.
Letzerich, Alfred M., Harlingen.
Lyle, Chas. F., San Benito.
*Mazer, Morton L. (Sec'y), Harlingen.
Morris, Edwin T., San Benito.
Myers, Gordon F., Brownsville.
Olcott, Cornelius (Mil.), Harlingen.
Peek, John S. (Mil.), Brownsville.
Pollard, Albert J., Harlingen.
Pope, Andrew J., La Feria.
Reed, Emil P. (Mil.), Brownsville.
Rentfro, James L., Brownsville.
Ryan, Glen V. (Mil.), Harlingen.
Scanlan, Nestor (Mil.), Brownsville.
Shafer, Troy A. (Pres.), Harlingen.
Smith, F. Nestor, Harlingen.
Trible, John J., Brownsville.
Turner, William R., Harlingen.
*Utley, Ralph E., Harlingen.
Vinsant, William J., San Benito.
*Watkins, John C., Harlingen.
*Works, Bynum M., Brownsville.
Yantis, George R., Brownsville.

HIDALGO-STARR COUNTIES MEDICAL SOCIETY

Balli, Carlos M., Monterrey, Mex.
Barnebee, James H., Mission.
Bennett, Frank W., McAllen.
Bowman, Newton H., Mercedes.
Burnett, Thos. R., Mission.
Caldeira, Anton D., Mercedes.
Casey, J. B. (Mil.), McAllen.
Conrad, John W., Pharr.
DeWitt, J. L., Elsa.
Duncan, W. H., McAllen.
Edgerton, Mary H., Rio Grande City.
Frenzel, Paul H., Donna.
Garcia, Octavio, McAllen.
Glass, T. W., Weslaco.
Guerra, G. A. (Mil.), Edinburg.
Hamme, Curtis J., Edinburg.
Hamme, Ralph E. (Sec'y), Edinburg.
Harrison, Jas. G., McAllen.
Hatfield, Walter H., McAllen.
Heidrick, D. L., Mercedes.
Hyder, D. C., Donna.
Ice, Noel C., McAllen.
Ivy, J. Bryan, Weslaco.
Lawler, Marion R., Mercedes.
Lockhart, J. P., Pharr.
Mann, Harold W., McAllen.
Mannering, Melvin, Alamo.
Martin, C. J., Hindesville, Ark.
*May, Joe Wallace, Edinburg.
McCalip, Edwin L., Weslaco.
*McKinsey, S. Joe, McAllen.
Mims, Chas. H., Mission.
Montague, L. J., Edinburg.
Montgomery, J. E., Weslaco.
Moore, L. H., McAllen.
North, N. T., Mission.
*Osborn, Alfred S., McAllen.
Osborn, Frank E., McAllen.
Pence, Roy W., San Juan.
Reed, Walter E. (Mil.), San Juan.
Riley, Pat., Mission.
Rodriquez, M. J. (Mil.), Rio Grande City.
Schaleben, Henry O., Edinburg.
Scott, Kincy, J. (Pres.), Pharr.
Smith, E. G., Mercedes.
*Smith, Moulton, Mission.
Souda, Andrew, Pharr.
Southwick, L. M. (Mil.), Edinburg.
Tupper, Lewis N., Elsa.
Walker, Ottis, Mission.
Webb, J. B., Donna.
*Webb, J. G., Mercedes.
Westphal, H. M. (Mil.), Weslaco.
Wharton, J. O., McAllen.
*Whigham, H. E., McAllen.
*Whigham, W. E., McAllen.

NUECES COUNTY MEDICAL SOCIETY

Arnim, Landon C. (Mil.), Corpus Christi.
Ashmore, Alvin J. (Mil.), Corpus Christi.
Averbach, Bert F., Corpus Christi.
Baldwin, Harvey C. (Mil.), Corpus Christi.
Barker, Wm. E. (Mil.), Corpus Christi.
Barnard, Wm. C., Corpus Christi.
Bickley, Estil T., Corpus Christi.
Blair, John V., Corpus Christi.
Boettger, Hans F., Corpus Christi.
Briggs, Harry A., Corpus Christi.
Carruth, W. E. (Hon.), Brownsville.
Carter, N. Dilford, Corpus Christi.
Clark, Dan H. (Mil.), Corpus Christi.
Cline, W. B., Jr. (Mil.), Corpus Christi.
Colef, Irving E., Corpus Christi.
Collins, Clarence B., Corpus Christi.
Colyer, Geo. E. (Mil.), Corpus Christi.
Concklin, C. Louis (Mil.), Corpus Christi.
Cope, Solomon F., Corpus Christi.
*Crain, Carroll F., Corpus Christi.
Danford, Edwin A., Corpus Christi.
Davisson, Arthur W., Corpus Christi.
Eckhardt, Kleberg (Mil.), Corpus Christi.
Edgerton, Geo. W., Corpus Christi.
Edwards, Thos. W., Corpus Christi.
*Ellis, Frank A. (Mil.), Corpus Christi.
Frank, Thelma E., Corpus Christi.
Frashuer, Wm. E., Robstown.
Friedman, Bernard B., Corpus Christi.
Furman, McIver, Corpus Christi.
Gaddis, H. W. (Mil.), Corpus Christi.
Garcia, Jose A., Corpus Christi.
Garrett, Leslie M. (Mil.), Corpus Christi.
Gentry, Wm. H., Corpus Christi.
Ghormley, Mary O., Corpus Christi.
Ghormley, Wm. C. (Mil.), Corpus Christi.
Gibson, Norman T. (Mil.), Robstown.
Giles, E. Jack (Mil.), Corpus Christi.
Giles, Henry R., Corpus Christi.
*Gill, E. King (Mil.), Corpus Christi.
Gray, Paul M. (Mil.), Corpus Christi.
Graham, Robt. H., Corpus Christi.
Grossman, Bernard B. (Mil.), Corpus
Grossman, Saul, Corpus Christi.
Guttman, L. P., Corpus Christi.
Harrell, Travis M., Corpus Christi.
Heaney, Harry G., Corpus Christi.
Heaney, H. Gordon (Mil.), Corpus Christi.
Heaney, Katherine, Corpus Christi.
Hearne, Chas. A., Corpus Christi.

Hoffpauir, A. C., (Mil.), Corpus Christi.
Hollister, Wm. L., Corpus Christi.
Hyder, Prentiss L., Corpus Christi.
Janssen, L. W. O., Corpus Christi.
Jasperson, C. P., Corpus Christi.
Kelly, Francis B., Corpus Christi.
Kemp, Kenneth J., Corpus Christi.
Kennedy, Hugh A. (Mil.), Corpus Christi.
*Koepsel, Orlando S. (Mil.), Corpus Christi.
*Lloyd, R. S., Corpus Christi.
Marler, Otis E., Corpus Christi.
Martin, Sterling B., Corpus Christi.
Mathis, Edgar G., Corpus Christi.
McBride, Wm. L., Corpus Christi.
Meador, C. N., Corpus Christi.
Moller, G. Turner (Pres.), Corpus Christi.
Moody, Foy H. (Mil.), Corpus Christi.
*Morgan, Chas. G., Corpus Christi.
Nast, Jerome, Corpus Christi.
North, Arthur, Corpus Christi.
O'Byrne, Geo. T., Corpus Christi.
Oliphant, T. Hillman, Corpus Christi.
Padilla, Arthur, Corpus Christi.
Perkins, Maury J., Corpus Christi.
*Pilcher, John F., Corpus Christi.
Portela, Adolfo P., Corpus Christi.
Posner, Sidney (Mil.), Robstown.
Priday, Cedric, Corpus Christi.
*Prothro, Ernest W., Austin.
Rhodes, Wm. L., Corpus Christi.
Rosenheim, Phillip, Corpus Christi.
Segrest, John B., Corpus Christi.
Sharp, James C. (Mil.), Corpus Christi.
Shinn, A. Louis (Mil.), Corpus Christi.
Sigler, Robt. J. (Mil.), Corpus Christi.
Sloan, Joe M. (Mil.), Corpus Christi.
Sloan, John J. (Mil.), Corpus Christi.
Smith, Youel C., Corpus Christi.
St. John, R. V. (Sec'y), Corpus Christi.
Staley, Harry R., Corpus Christi.
Stewart, Chas. D., Corpus Christi.
Stone, Belo, Robstown.
Stroud, S. K. (Mil.), Corpus Christi.
*Swearingen, Robt. G. (Mil.), Corpus Christi.
Talley, O. H., Corpus Christi.
Thomas, John R., Corpus Christi.
Triplett, Wm. C. (Mil.), Corpus Christi.
Watson, Clyde O., Corpus Christi.
White, H. A., Corpus Christi.
Williams, M. L., Robstown.
Williamson, C. M., Corpus Christi.
Yeager, Chas. P., Corpus Christi.

SAN PATRICIO-ARANSAS-REFUGIO COUNTIES MEDICAL SOCIETY

Boykin, J. M. (Mil.), Taft.
Bull, John B., Aransas Pass.
Cockerham, Louis H., Sinton.
Cron, Charles F., Rockport.
Curlee, Curtis L. (Sec'y), Sinton.
Ewing, F. S. Mil.), Sinton.
Finn, John H., Refugio.
Finn, Josephine S., Refugio.
Flynn, Eugene (Mil.), Refugio.
Glover, G. E., Austwell.
Guynes, W. A. (Mil.), Mathis.
Jenkins, Young Sam, Taft.
Jones, Edgar F. (Mil.), Aransas Pass.
Kendrick, M. C., Ingleside.
Knapp, Roger S. (Pres.), Aransas Pass.
Koch, Alvis A. (Mil.), Ingleside.
Koontz, Arch C. (Mil.), Woodsboro.
Richey, E. B., Pharr.
Shipp, Henry H., Woodsboro.
Tasch, A. T. (Mil.), Taft.
Tompkins. Donald R., Refugio.
Voss, A. H., Odem.
Woods, Haddon B. (Mil.), Refugio.
Zarskey, E. P. (Mil.), Refugio.

WEBB-ZAPATA-JIM HOGG COUNTIES MEDICAL SOCIETY

Austin, H. M., Laredo.
*Ballard, Arthur E., Laredo.
Candlin, Geo. H., Laredo.
*Canseco, Francisco M. (Pres.), Laredo.
Carrithers, C. M. (Mil.), Bruni.
Chapa-Badillo, Jesus, Laredo.
Cook, A. T., Laredo.
Crawford, J. L., Laredo.
de la Garza, Raul, Laredo.
Gonzales, Joaquin C., Laredo.
Graham, S. H., Laredo.
Horton, J. J., Laredo.
Longoria, E. M., Laredo.
Lowry, Ruby S., Laredo.
Malakoff, N. E. (Mil.), Laredo.
Montalvo, Lauro (Mil.), Laredo.
Penny, Geo. E. (Mil.), Laredo.
Powell. Wm. R., Laredo.
Puig, V. L. (Mil.), Laredo.
*Rottenstein, Max, Laredo.
Sauvignet, E. H. (Hon.), Laredo.
Simpson, James A. (Mil.), Laredo.
Standlee, T. H., Mirando City.
White, Hugh D., Monterrey, Mex.
Wright, Ray B., Laredo.
*Shafer, Norman S. (Sec'y), Laredo.

SEVENTH OR AUSTIN DISTRICT

Dr. R. T. Wilson, Austin, Councilor.

BASTROP COUNTY MEDICAL SOCIETY

*Bryson, J. Gordon, Bastrop.
Campbell, W. E. (Sec'y), Elgin.
*Dickerson, Melford, Austin.
Fleming, Joe V., Elgin.
Hoch, Chas. M., Smithville.
Hoch, Chas. M., Jr., Smithville.
*Kroulik, F. J., Smithville.
Stephens, J. D., Smithville.
Wood, W. E. (Pres.), Elgin.

CALDWELL COUNTY MEDICAL SOCIETY

DuBoise, Otho K. (Mil.), Lockhart.
Luckett, Francis C., Fentress.
Nichols, H. Clay, Jr., Luling.
Nichols, H. Clay, Sr., Luling.
O'Banion, John T. (Sec'y), Luling.
Pitts, Minor W. (Pres.), Luling.
Ross, Abner, A., Jr., (Mil.), Lockhart.
*Ross, Alonzo A., Sr., Lockhart.
Ross, Raleigh R. (Mil.), Lockhart.
Smith, Edgar, Lockhart.
Watkins, Walter P. (Mil.), Luling.

HAYS-BLANCO COUNTIES MEDICAL SOCIETY

deSteiguer, John R. (Sec'y), San Marcos.
Edwards, Louis L., San Marcos.
Flannery, John J., Blanco.
*Kealey, Edward T., Johnson City.
*Lancaster, York (Pres.), San Marcos.
Lauderdale, Clay, Buda.
Morton, John R., San Marcos.
Shelton, Edgar P., Dripping Springs.
Sowell, Rugel F., San Marcos.
Van Ness, Julius M., San Marcos.
White, David L. (Mil.), San Marcos.
Williams, Milton C., San Marcos.
Williams, Wilburn C., San Marcos.

LAMPASAS-BURNET-LLANO COUNTIES MEDICAL SOCIETY

Allen, Geo. S. (Mil.), Burnet.
Bivins, Luther L., Copperas Cove.
Black, D. W., Lampasas.
Brook, W. M., Lampasas.
*Fowler, Wert D., Eden.
Gaddy, H. R., Lampasas.
Gray, Geo. L., Llano.
Hoerster, H. J. (Mil.), Llano.
Landrum, Marvin M., Lampasas.
Rollins, H. B. (Mil.), Lampasas. z
*Shepperd, Joe A. (Sec'y), Burnet.
Shepperd, R. L., Llano.
Vaughn, Thos. D. (Pres.), Bertram.
Willerson, J. E., San Antonio.
Hoerster, Samuel A. (Mil.), Llano.

LEE COUNTY MEDICAL SOCIETY

Burns, Robt. B. (Mil.), Giddings.
Hertel, Henry G. (Pres.), Giddings.
Mantzel, Sherwood W., Giddings.
York, William E. (Sec'y), Giddings.

TRAVIS COUNTY MEDICAL SOCIETY

Allison, Bruce, Wichita Falls.
Auler, Hugo A., Austin.
Bailey, Chas. W., Austin.
Bailey, Thos. B., Austin.
Black, W. B., Austin.
Blaustone, Henry H., Austin.
*Bohls, S. W., Austin.
Bowden, A. M., Austin.
Brady, J. J. (Mil.), Austin
Bratton, Robt. (Mil.), Austin.
Brown, M. I., Austin.
Brownlee, C. H., Austin.
Carter, C. E., Austin.
Castner, Chas. W., Austin.
Chrisman, W. P. (Mil.), Austin.
Clark, Simon J., Austin.
Cleveland, G. W., Austin.
Cloud, Ralph E., Austin.
*Coleman, Jas. M., Austin.
Cooper, R. A., Austin.
Cooper, S. S. (Mil.), Austin.
*Crockett, John A., Austin.
Crowell, Caroline, Austin.
Darnall, Chas. M. (Mil.), Austin.
Dashiell, Albert M. (Mil.), Austin.
Davidson, Harry T., Austin.
Davis, Nathan (Mil.), Austin.
Dildy, C. B. (Mil.), Austin.
Dyson, Thos. N., San Antonio.
Eckhardt, James W., Austin.
Eckhardt, Joe C. A., Austin.
*Edens, Lee E., Austin.
Eppright, Ben R., Austin.
Esquivel, Sandi, Austin.
Frobese, Joe R., Austin.
Gambrell, Wm. M., Austin.
Garcia, Alberta G., Austin.
*Gentry, Elizabeth F., Austin.
Gibson, J. W., Austin.
Gilbert, G. H., Austin.
Gilbert, Joe, Austin.
Gilbert Joe T. (Mil.), Austin.
Goddard, Walter C., Austin.
Gondolf, Harold J., Austin.
Granberry, Howard, Jr., Austin.
*Gregg, F. Banner, Austin.
Hardwicke, Chas. P. (Mil.), Austin.
Hay, Bruce (Mil.), Austin.
Heitzman, Celine I., Austin.
Henry H. B., Austin.
Herrod, James H. (Mil.). Austin.
Hilgartner, H. L., Jr., (Mil.), Austin.
Holland, Lang F. (Sec'y), Austin.
Houston, Wm. R., Austin.
*Jackson, J. Warren, Austin.
Jaehne, Robt. J. (Mil.), Austin.
Jordan, R. C. (Mil.), Austin.
Kelton, W. W., Jr. (Mil.), Austin.
Key, Sam, Austin
Klotz, H. L., Austin.
Kreisle, M. F., Austin.
Lippmann, Otto (Mil.), Austin.
Loving, James M., Austin.
Loving, Maribel, Austin.
Martin, Claud A. (Mil.), Austin.
Mathews, C. A., Austin.
McCormick, Katherine, Austin.
McCrummen, Thos. D., Austin.
*McElhenney, Thos. J., Austin.
Miears, Claud H., Austin.
Milligan, Barth, Austin.
*Moore, Carl F., Austin.
Morgan, W. P., Austin.
*Morris, Truman N. Austin.
Morrison. Robt. B., Austin.
Murray, R. V., Austin.
Nanney, A. L., Austin.
Neighbors, A. H., Austin.
Newman, H. W., Austin.
Nichols, J. R., Austin.
Paggi, Leonard C., Austin.
Paine, Henry C., Austin.
Paterson, Elizabeth, Austin.
Peavy, Chas. D., Austin.
Price, Enoch C., Waco.
Primer, B. M. (Mil.), Austin.
Rabb, V. S., Jr., (Mil.), Austin.
Richardson, Dalton, Austin.
Robinson, Harold L. (Mil.), Austin.
Robinson, Wm. Lee, Austin.
Robison, J. T., Austin.
Rothen, Robt. M. (Mil.), Austin.
Saldivar, Julian T. (Mil.), Austin.
*Schiller, Nelson L., Austin.
*Scott, H. A. (Pres.), Austin.
Scott, Z. T., Austin.
Shane, Hugh (Mil.), Austin.
*Smith, Howard E., Austin.
Standifer, C. H., Austin.
Suehs, Oliver (Mil.), Austin.
Suehs, P. E., Austin.
Swift, Edward V. (Mil.), Austin.
Terry, A. A., Austin.
Thomas, H. P., San Antonio.
Thomas, Harold R. (Mil.), Austin.
*Thomas, J. C., Austin.
Thompson, Burch, Austin.
Thornhill, G. F., Austin.
Veith, Richard P. (Mil.), Austin.
Wagner, Robt. G. (Mil.), Austin.
*Walters, Luther P., Austin.
Watt, T. N. (Mil.), Austin.
Watt, Will E., Austin.
White, B. O. (Mil.), Austin.
White, Paul L. (Mil.), Austin.
Willess, Hersel F., Austin.
Williams, Harriss, Austin.
Williams, Wm. E. (Mil.), Austin.
*Wilson, R. T., Austin.
Woolsey, S. A., Austin.
Wooten, Joe S., Austin.
Zedler, Garland G. (Mil.), Austin.

WILLIAMSON COUNTY MEDICAL SOCIETY

Alexander, Margaret H. (Pres.), Taylor.
Atkinson, Ozias B., Florence.
*Cooper, Dewey H., Georgetown.
Crawford, Clyde H., Bartlett.

Doak, Edmond K., Taylor.
Feaster, Hezzie, Taylor.
Gregg, D. B., Round Rock.
Johns, Jay J. (Sec'y), Taylor.
Jopling, J. L. (Mil.), Taylor.
Kirkpatrick, B. A., Taylor.
Kirkpatrick, S. B. (Hon.), Taylor.
Kuehne, Henry, Coupland.
Martin, John R., Georgetown.
Rice, Albert J. (Mil.), Georgetown.
Ross, Geo. D.. Leander.
*Sharp, Milton R., Granger.
Smith, Jas. A., Burnet.
Stromberg, Eric W., Taylor.
Swanson, Wayland R. (Mil.), Taylor.
Wedemeyer, Wm. C., Walburg.
Wheeler, H. P. (Mil.), Georgetown.

EIGHTH OR DEWITT DISTRICT

Dr. F. J. L. Blasingame, Wharton, Councilor.

COLORADO COUNTY MEDICAL SOCIETY

Bell, Robt. H. (Mil.), Columbus.
Cook, Chas. G., Weimar.
Kirkham, S. H., Columbus.
Laughlin, John R., Eagle Lake.
Peters, Leo J. (Sec'y), Schulenburg.
Potthast, A. H. (Pres.), Weimar.
Shult, C. I., Columbus.

DEWITT COUNTY MEDICAL SOCIETY

Arnecke, C. A. H., Arneckville.
*Bohman, Alfred J., Cuero.
Brown, Harry H., Sr., Yoakum.
Brown, Harry H., Jr., Yoakum.
*Burns, John Gilbert, Cuero.
Cross, Geo. W., Yorktown.
Dobbs, James C. (Pres.), Cuero.
Douthit, Walton E., Cuero.
Duckworth, G. Marvin, Cuero.
*Eckhardt, Heman C. (Sec'y), Yorktown.
King, Gerald A., Cuero.
Milner, Robert M., Yoakum.
*Nau, Carl A., Galveston.
Nowierski, Leon W., Yorktown.
O'Quinn, C. Lafayette, Weesatche.
Prather, Frank A. (Mil.), Runge.
Richter, Louis B. S., Yoakum.
Westphal, Corinne, Yorktown.
Westphal, Robt. D. (Mil.), Yorktown.

FAYETTE COUNTY MEDICAL SOCIETY

Beckmann, Paul, LaGrange.
Boelsche, Leslie D. (Sec'y), LaGrange.
Guenther, Frank J., LaGrange.
Guenther, John C., LaGrange.
Kieke, August W., Round Top.
Luedemann, W. O., Schulenburg.
Miller, Arthur C. (Pres.), Carmine.
Schulze, Gene, Schulenburg.

LAVACA COUNTY MEDICAL SOCIETY

Boyle, J. W., Jr. (Sec'y), Shiner.
Dufner, C. T. (Pres.), Hallettsville.
Jaeggli, Sam, Moulton.
Kopecky, Chas. L., Yoakum.
*Marek, E. H., Yoakum.
Shepperd, R. R., Flatonia.
Strieder, Hugo J. (Mil.), Moulton.
Wagner, Frank M., Shiner.
Williams, Robert W. (Mil.), Shiner.

VICTORIA-CALHOUN-GOLIAD COUNTIES MEDICAL SOCIETY

Allen, G. W., Jr., Victoria.
DeTar, Webb T., Victoria.
Ehlert, Edward A., Jr., Victoria.
Gunter, Joseph T., Goliad.
Hopkins, Joseph V. (Pres.), Victoria.
Mosley, R. A., Victoria.
Roemer, Fred J., Port Lavaca.
Ryan, Oscar H., Seadrift.
Sale, Walter W., Victoria.
Shields, Allan C., Victoria.
Shields, Fred B., Victoria.
Story, Joseph R. (Sec'y), Victoria.
Ward, Rawley W., Victoria.

WHARTON-JACKSON-MATAGORDA-FORT BEND COUNTIES MEDICAL SOCIETY

Andrews, Judson M., Wharton.
Balke, John W., Rosenberg.
Barbour, Joel Lane, Bay City.
Bauknight, J. M., Ganado.
Black, Vernon, Wharton.
Blair, Robert K., Wharton.
*Blair, William M., Wharton.
*Blasingame, F. J. L., Wharton.
Davidson, G. L., Wharton.
Davidson, T. L., Wharton.
*Dozier, J. V., Premont.
Dye, Fulton E. (Mil.), Bay City.
Giddings, H. D. (Mil.), El Campo.
Guffy, Joseph L., Palacios.
Halamicek, J. A., El Campo.
*Johnson, R. G., Newgulf.
Kuykendall, H. D., Sugarland.
Loos, Henry Hoffman, Bay City.
McGee, Borden M., Rosenberg.
Neal, T. M., Wharton.
Nichols, C. V., Richmond.
Outlar, L. B. (Mil.), Wharton.
Reeves, H. V., El Campo.
Roche, Buell F. (Sec'y), Bay City.
Rugeley, Frank R., Wharton.
Schulze, Gustave A., El Campo.
Schumann, J. Daniel, East Bernard.
Shoultz, Charles A. (Pres.), Bay City.
Simons, Bryan E., Bay City.
*Simons, J. W., Newgulf.
Slaughter, Carlos A., Sugarland.
Thiltgen, Winston S., El Campo.
Wagner, J. R., Palacios.
Weeks, John W., Rosenberg.
Weinheimer, E. A., El Campo.
Whitfield, Walter E., Edna.
Yates, Charles W. (Mil.), Rosenberg.
Yelderman, Gus C. (Mil.), Rosenberg.
Zipp, Raymond P., Edna.

NINTH OR SOUTHERN DISTRICT

Dr. J. E. Clarke, Houston, Councilor.

AUSTIN-WALLER COUNTIES MEDICAL SOCIETY

Gordon, Virgil (Pres.), Sealy.
Hackfield, Alfred J., Industry.
Hover, Frank W., Sealy.
Jones, Malcolm A. (Mil.), Hempstead.
Neely, Jubol A., Bellville.
Roensch, Herbert E. (Sec'y), Bellville.
Schmid, R. J. (Dead), New Ulm.
Steck, Otto E., Bellville.
Walker, Sidney C., Hempstead.

BRAZORIA COUNTY MEDICAL SOCIETY

Galloway, Wm. T., Freeport.
Greenwood, Wm. M., West Columbia.
Hampil, C. C., Brazoria.
Hayes, G. J., Alvin.
Holt, Wm. C., Angleton.
Laurie, Ben Earl Sweeney.
McCary, A. O., Freeport.
McCary R. M., Freeport.
Merz, Herbert, Alvin.
Miller, Robert C., Velasco.
Muetz, Walter, Pearland.
Reeves, Geo. D. (Pres.), Freeport.
Ryan, Wm. G., Freeport.
Slaughter, S. B., Jr, Freeport.
Stafford, Brooks (Sec'y), Angleton.
*Weems, M. A., East Columbia.

BURLESON COUNTY MEDICAL SOCIETY

Goodnight, Thos. L. (Pres.), Caldwell.
Kozar, Jos. H. (Hon.), Somerville.
*Pazdral, Geo. V., Somerville.
Roach, Thos. S., Caldwell.
Siptak, John E. (Sec'y), Caldwell.

GALVESTON COUNTY MEDICAL SOCIETY

Adriance, Carroll T. (Mil.), Galveston.
Anderson, Wm. T., LaMarque.
Aves, Fred W., Galveston.
*Barnes, Ralph E., La Marque.
Beeler, Geo. W. (Mil.), Texas City.
Blocker, Truman G. (Mil), Galveston.
Blocker, Virginia I., Galveston.
Brindley, Paul, Galveston.
Caravageli, M. A., Galveston.
Casey, Robt. E. (Mil.), Texas City.
Clark, Albert I. (Mil.), Galveston.
Cruce, Wm. V., Texas City.
Cone, Robert E., Galveston.
Cooke, Willard R., Galveston.
Danforth, Duncan R. (Mil.), Galveston.
*Decherd, Geo. M., Galveston.
DeLange, Arnott (Mil.), Galveston.
Delaney, John J. (Mil.), Galveston.
Duren, Norman (Mil.), Galveston.
*Eggers, G. W. N., Galveston.
*Ewalt, Jack R., Galveston.
*Fisher, Wm. C., Jr., Galveston.
Fleming, Ben P., Texas City.
*Ford, Hamilton F. (Mil.), Galveston.
Fowler, C. Frederick, Galveston.
Frank, Theodore McC., Texas City.
*Frazier, Chester N., Galveston.
*Fuste, Carlos E., Galveston.
Garbade, Francis A., Galveston.
Gilliam C. Hughes (Mil.), Galveston.
*Gregory, Raymond L., Galveston.
Harris, Titus H., Galveston.
Herrington, D. J., Texas City.
Herrmann, Geo. R., Galveston.
Hoecker, Wade L., Galveston.
Hoeflich, Emilia A., Galveston.
Hooks, Charles A., Galveston.
Jarrell, Norman D., Texas City.
Jinkins, A. J., (Mil.), Galveston.
Jinkins, Julius L., Galveston.
Jinkins, Wiley J. (Hon.), Galveston.
*Johnson, Jesse B., Galveston.
Kahn, G. Mason (Mil.), Galveston.
*Klatt, Emil H. (Pres.), Galveston.
Kleberg, Walter, Galveston.
*Knight, Maynard D., Galveston.
*Kolb, Weldon G., Galveston.
Lee, Geo. T., Galveston.
Lefeber, Edward J., Galveston.
Levin, Wm. C., Galveston.
Magliolo, Joseph C., Dickinson.
Manske, G. H. (Mil.), Texas City.
Mares, Charles F., Galveston.
Marr, Wm. L., Galveston.
Maxfield, Mary H., Galveston.
McGivney, John, Galveston.
McKinley, Wesley F., Galveston.
McLarty, E. Sinks, Galveston.
McMurray, Jas. R., Galveston.
McReynolds, Geo. S. (Sec'y), Galveston.
Moore, Robt. M. (Mil.), Galveston.
Otto, John L., Galveston.
Parrish, B. R. (Mil.), Galveston.
Perlman, Bernard, Galveston.
Peters, Leo J., Jr., Texas City.
*Poth, Edgar J., Galveston.
Potter, Wm. B., Galveston.
Prujansky, Nathan, Galveston.
Quinn, Clarence F. (Mil.), Texas City.
Randall, Edward, Jr., Galveston.
Randall, Edward (Emer.), Galveston.
Reading, Wm. Boyd, Galveston.
Ritchie, Earl B., Galveston.
Robinson, H. Reid, Galveston.
Ross, Marcus L., Galveston.
*Ruskin, Arthur, Galveston.
Schmidt, Henry A., Texas City.
Schofield, Norman D., Galveston.
Schultz, Leon (Mil.), Galveston.
Schwab, Edward H., Galveston.
Sharp, Wm. B., Galveston.
Sheckles, Lloyd W. (Mil.), Galveston.
*Shelton, Fred W., Galveston.
*Singleton, Albert O., Galveston.
Slocum, Harvey C., Galveston.
*Snodgrass, Samuel R., Galveston.
Spillar, Wm. F. (Mil.), Galveston.
Starley, Wm. F., Galveston.
Stephen, Weldon W. (Mil.), Galveston.
*Stone, Charles T., Galveston.
*Sykes, Clarence S., Galveston.
*Sweets, Henry H., Galveston.
Thompson, Edward R., Galveston.
Tomlinson, Lou M., Galveston.
*Towler, Martin L. (Mil.), Galveston.
Twidwell, Leonard, Texas City.
Wall, Dick P., Galveston.
Wallace, Wm. S., Galveston.
*Weaver, John D., Galveston.
Weinert, Herman, Jr. (Mil.), Galveston.
Weisz, Stephen, Galveston.

GRIMES COUNTY MEDICAL SOCIETY

Coleman, S. D., Navasota.
Hansen, Carl M. (Mil.), Washington.
Harris, G. C., Jr. (Mil.), Navasota.
Parker, M. E., Anderson.
Sanders, G. C., Richards
Stewart, H. L. (Sec'y), Navasota.

HARRIS COUNTY MEDICAL SOCIETY

Adam, George F. (Mil.), Houston.
Adams, Granville Q., Houston.
Agnew, James H., Houston.
Alexander, Chas. S., Houston.
Alexander, Herbert L., Houston.
Alexander, J. C. (Mil.), Houston.
Allen, Leonardo, Houston.
Ames, Frederic D. (Mil.), Houston.
Andrews, Tom A. (Mil.), Houston.
Applebe, Edward W., Houston.
*Archer, Palmer M., Houston.
Armentrout, Coral R., Houston.
Arnold, E. M., Houston.
Ashmore, Chas. M. (Dead), Houston.
Austraw, H. H., Houston.
Aves, C. M. (Dead), Houston.
Axlerod, A., Houston.
Aydam, C. W., Houston.
Babcock, Darrow S. (Mil.) Houston.
Bachtel, May B., Houston.

Baird, J. Byron, Pasadena.
Baird, V. C., Houston.
Barkley, Howard T. (Mil.), Houston.
*Barnes, J. Peyton, Houston.
Barrett, John H., Houston.
Bartlett, Henry L. (Mil.), Houston.
Bayer, Bernard H., Houston.
Bell, Justin E., Houston.
Bell, Wm. E. (Mil.), Houston.
Bennett, Wm. H., Humble.
Berry, Chas. R., Houston.
*Bertner, E. W., Houston.
Best, Paul W., Houston.
Bickel, Laura C., Houston.
Billups, J. T. (Mil.), Houston.
Biscoe, Pat, Houston.
Blair, Lyman C., Houston.
*Bloxsom, Allan P., Houston.
Bloom, Fred A. (Mil.), Houston.
Bloom, Manuel G. (Mil.), Houston.
Blue, Jacob S., Houston.
Blundell, James R. (Mil.), Houston.
Boardman, Harriett L., Houston.
*Bonham, Russell F., Houston.
Bonin, W. P. (Mil.), Houston.
Bost, James R., Houston.
Bourdon, Lynn L. (Mil.), Houston.
Bowen, Ralph, Houston.
Bowen, Shirley S., Houston.
Boyd, Adam N., Houston.
*Braden, Albert H., Houston.
Bradford, F. Keith (Mil.), Houston.
Bradley, Raymond L. ,Houston.
Brandau, George H., Houston.
Brandau, George M., Houston.
Brannon, Jack G. (Mil.), Houston.
Brener, Lazard S. (Mil.), Houston.
Brener, Zidella S., Houston.
Bressler, J. L., Houston.
Brohn, Alfred J., Houston.
Brown, James A. (Mil.), Houston.
Brown, John W. (Mil.), Houston.
Bruder, Wood H., Houston.
Bruhl, Chas. E., Houston.
Bruhl, Chas. K. (Mil.), Houston.
Bruhl, Dan E., Houston.
Brumby, Wm. M. (Hon.), Houston.
Bryan, W. G., Houston.
Bukowski, Lucien M., Houston.
Burg, Abner D., Houston.
Burge, Curtis H., Houston.
*Burr, Harry B. (Mil.), Houston.
Butaud, Russel S. (Mil.), Houston.
Buteria, James M. (Mil.), Houston.
Calaway, F. Otis, Houston.
Calhoun, C. Alsworth, Houston.
*Caplovitz. Harry, Houston.
Carrico, Carl C. (Mil.), Houston.
Carroll, Gay V., Houston.
Carroll, Mary V. B., Houston.
*Carter, Rexford G. (Mil.), Houston.
Chandler, E. A. (Mil.), Houston.
Chunn, Edward K., Houston.
Clapp, J. Alston (Mil.), Houston.
Clark, Wm. A., Houston.
Clarke, Herndon H., Houston.
*Clarke, J. E., Houston.
*Clarkson, A. M., Houston.
Clements, Stanley C., Houston.
Crockerell, John A. (Mil.), Houston.
*Cody, Claude C., Houston.
Cohen, Raymond (Mil.), Houston.
Cole, Wm. Frank, Houston.
Coleman, Catherine E., Houston.
Collette, Allen (Mil.), Houston.
Collier, James L., Houston.
Collins, Ray G., Houston.
Compere, Thos. H., Houston.
Connor, Edwin E., Pasadena.
Connor, Wm. H. (Mil.), Houston.
Conte, Raphael (Mil.), Houston.
Coogle, C. P., Houston.
Coole, Walter A., Houston.
Cope, R. Louis, Houston.
Corbett, L. B., Houston.
Coulter, Wm. W., Houston.
Cowart, E. M. (Mil.), Houston.
Coxe, L. F. (Mil.), Houston.
Crapitto, Louis A., Houston.
Crawford, Elizabeth S., Houston.
Crigler, Cecil M., Houston.
Crocker, Ed Sewell, Houston.
Cronin, Thos. D. (Mil.), Houston.
Cruse, Percy R., Houston.
Cull, Herbert G. (Mil.), Houston.
Cummings, Hatch W. (Mil.), Houston.
Cunningham, Geo. N. (Mil.), Houston.
Curb, Dolph L. (Mil.), Houston.
Cutler, Hayden H. (Mil.), Houston.
Dailey, James E. (Mil.), Houston.
*Dailey, Louis, Houston.
*Daily, Ray K., Houston.
Daniel, Joseph E. (Hon.), Houston.
Dargan, Joseph L., Houston.
David, Solomon, D., Houston.
Davis, Chas. Q. (Mil.), Houston.
Davis, Hamlet I., Goose Creek.
Dawes, Raymond K., Houston.
Day, George P., Houston.
Denman, Payton R., Houston.
Denzler, S. Russ, Houston.
DeVore, Neal M., Houston.
Dickson, J. Chas., Houston.
Doak, Edmond K., Houston.
Doak, N. P., Houston.
Dodge, Wm. E. (Hon.), Houston.
Dolph, Chauncey H., Baytown.
Donohue, Wm. N. (Mil.), Houston.
Donovan, Thos. J. (Mil.), Houston.
Dornak, Franklin K. (Mil.), Houston.
DuBose, J. B. (Hon.), Humble.
DuCroz, J. L. (Mil.), Houston.
Duggan, LeRoy B. (Mil.), Houston.
Duke, Herbert H., Goose Creek.
Duncan, Clara K., Houston.
Dunkerly, Allen K., Houston.
Durham, Mylie E., Houston.
Durrance, Fred Y., Houston.
Dustin, Herman E., Houston.
Dwyer, C. A. (Mil.), Houston.
Edwards R. A. (Mil.), Houston.
Ehlers, H. Jack, Houston.
Ehrhardt, Wm., Fairbanks.
Eidman, F. G. (Mil.), Houston.
Ekman, C. J. Ivan, Houston.
Elles, Norma B., Houston.
Elliott, E. E., Houston.
Elliott, Monroe L., Houston.
Ellis, Lucius M., Houston.
Embree, Elisha D. (Mil.), Houton.
Englehardt, H. A., Houston.
Ernst, Frank J., Houston.
Estess, Berthold H. (Mil.), Houseton
Farfel, Bernard, Houston.
Faris, Arthur M. (Mil.), Houston.
Farrish, George C., Houston.
Feagin, Horace C., Houston.
Filippone, John M., Houston.
Finney, Roy Milton, Houston.
*Fisher, Wilton M., Houston.
Fitch, Edward O., Houston.
Fleet, Carl W. (Mil.), Houston.
Flynn, James G., Houston.
Flynt, Otis P., Houston.
Foote, Stephen A. (Mil.), Houston.
*Foster, Joe B., Houston.
*Foster, John H., Houston.
Foster, Juanita E., Houston.
Frachtman, Hirsh J. (Mil.), Houston.
Frawley, J. T., Pasadena.
Freundlich, Thos. W., Houston.
Frey, Clarence E., Houston.
Friend, Victor V., Houston.
Gamble, J. F., Houston.
Gandy, D. Truett, Houston.
Gandy, Joe R., Houston.
Gantt, Albert M., Houston.
Gantt, Marvin A., Houston.
*Gardner, Herman L., Houston.
Gardner, Irvin B. (Mil.), Houston.
Gardner, Robt. A. (Mil.), Houston.
Gaston, John Zell, Houston.
Gates, Chas. S., Houston.
Gemoets, Henry N., Houston.
Gerson, Gustav R., Houston.
Giessel, Lotta, Houston.
Gilbert, Howard P. (Mil.), Houston.
Glantzberg, Herman, Houston.
Glen, John K. (Mil.), Houston.
Glover, Frank S. (Mil.), Houston.
*Goar, Everett L., Houston.
Gonzales, Angel C. (Mil.), Houston.
Gooch, F. B., Houston.
Goodloe, Noble M. (Mil.), Houston.
Goodwin, Roy T., Houston.
Goss, Jesse M., Houston.
Graves, E. Ghent (Mil.), Houston.
*Graves, Marvin L. (Emer.), Houston.
Gready, Donald M., Houston.
Green, Chas. C., Houston.
Green, Wilbur K. (Mil.), Houston.
*Greene, James A., Houston.
*Greenwood, James, Jr., Houston.
Greenwood, James, Sr., Houston.
Greer, Alvis E., Houston.
Greer, Cecil, Houston.
Greer, V. David, Houston.
*Griffey, Edward W., Houston.
Griswold, C. M., Houston.
Grunbaum, Franz V., Houston.
Guthrie, Thos. H. (Mil.), Houston.
Haden, Henry C., Houston.
Hale, Richard A., Houston.
Haley, John C., Houston.
Haley, S. Willard, Houston.
Hallson, Chas. H., Houston.
Hallson, D. C. McKenzie, Houston.
Ham, Goldie S., Houston.
Hamilton, Carlos R. (Mil.), Houston.
Hancock, Leslie D., Houston.
Handley, Lucius L., Houston.
Haney, Fred T., Houston.
Hannon, Theo. R., Houston.
Hardy, Sidney B. (Mil.), Houston.
Hargrove, R. M., Houston.
Harris, C. P., Houston.
*Harris, Herbert H. (Mil.), Houston.
*Harris, J. Wade, Houston.
Harris, T. Fred, Houston.
Harris, Woodson W. (Mil.), Houston.
Harrison, Malcolm W. (Mil.), Houston.
Harrison, Preston E., Houston.
Hartgraves, Ruth, Houston.
Hauser, Abe (Mil.), Houston.
Hayes, Herbert T., Houston.
Heard, J. Griffin (Mil.), Houston.
Henderson, Donald G. (Mil.), Houston.
Hensley, Barnes C. (Mil.), Houston.
Hild, Jack R. (Mil.), Houston.
*Hill, Austin E., Houston.
Hill, James A., Houston.
Hill, Jasper H., Houston.
*Hill, Joel M. (Mil.), Houston.
Hinds, Gordon F., Houston.
Hines, Norman D., Houston.
Hodde, Louis F., Houston.
Hodel, George R., Houston.
Hodges, J. Edward, Houston.
Hoeflich, C. Wm., Houston.
Hoeflich, Werner F. (Mil.), Houston.
Holland, Clell G. (Mil.), Houston.
Holland, T. L., Houston.
Hollimon, James H. (Mil.), Houston.
Holloran, Richard J., Houston.
Hollub, Chas. J., Houston.
Holscomback, J. C., Goose Creek.
*Hooker, Lyle, Houston.
Hopkins, J. J. (Mil.), Houston.
Horowitz, Nathan, New Orleans, La.
Hotchkiss, DeWitt H. (Mil.), Houston.
*Howard, A. Philo, Houston.
Huffman, M. M., Houston.
Hughes, Arranda A., Houston.
Hughes. Fred M. (Mil.), Houston.
Humphrey, Stanley G. (Mil.), Baytown.
Hutcheson, Allen C., Houston.
Iiams, Frank J., Houston.
James, A. Judson (Hon.), Houston.
Janse, H. M., Houston.
Jerabeck, John D. (Mil.), Houston.
Johnson, Herman W., Houston.
Johnson, R. M. (Mil.), Houston.
Johnson, Seale I., Houston.
*Johnston, Robt. A., Houston.
Jones, J. Thos., Houston.
Jones, J. Randolph (Mil.), Houston.
Jones, Robt. E. (Mil.), Pasadena.
Jones, Thos. R., Houston.
Jorns, Cecil F. (Mil.), Houston.
Kalb, Theodore W., Houston.
Kaminsky, Dave, Houston.
Karbach, Nelson W., Houston.
*Karnaky, Karl John, Houston.
Katribe, Paul (Mil.), Houston.
Kearby, Harold D., Houston.
Keiller, Violet, Houston.
Kendall, Dean H., Houston.
Kennedy, Edwin J., Houston.
Kennerly, Thos. P., Houston.
Kerr, Chas. D. (Mil.), Houston.
Kilgore, F. Hartman, Houston.
Kilgore, Morris W., Houston.
Kilgore, Newton A. (Mil.), Houston.
Kincaid, Harvey L., Houston.
Kinell, Jack (Mil.), (Dead), Houston.
Kirkham, H. L. D. (Mil.), Houston.
Kirkpatrick, L. P. (Mil.), Houston.
Klanke, Chas. W. (Mil.), Houston.
Kneip, August T., Houston.
Knolle, Ben E. (Mil.), Houston.
Knolle, Guy E. (Mil.), Houston.
Kootsey, Joe S. (Mil.), Houston.
Kreimeyer, James H., Houston.
Kuebler, Luke W., Houston.
*Kyle, J. Allen, Houston.
Lancaster, Edgar H., Houston.
*Lancaster, Frank H., Houston.
Langford, Cohen H., Goose Creek.
Langston, John E., Houston.
Lapat, William, Houston.
Larsen, R. L. (Mil.), Houston.
Latimer, Mark H., Houston.
Lawrence, B. A. (Mil.), Houston.
Lechenger, Gilbert C., Houston.
*Ledbetter, Abbe A., Houston.
Ledbetter, Paul V., Houston.
Leggett, Milburne K. (Mil.), Houston.
Lerner, Ben L. (Mil.), Houston.
*Levy, Mois D., Houston.
Lewis, Everett B. (Mil.), Houston.
Lewis, Leo Roy, Houston.
Leyva, Angel, Houston.

Ligon, Joseph G., Houston.
Liles, Ralph, Houston.
Lister, Sidney M., Houston.
Littell, Milton (Mil.), Houston.
Little, A. A. (Mil.), Houston.
Lockhart, Jessie A., Houston.
Logue, Lyle J., Houston.
Lowe, Thos. E. (Mil.), Houston.
Lucas, J. B., Houston.
Ludeau, J. Ernest, Houston.
Lummis, Fred R., Houston.
McAlister, Finis E., Houston.
McConnell, Seth A. (Hon.), Houston.
McCulley, J. D. (Mil.), Houston.
McDaniels, Walter S. (Mil.), Houston.
McFarling, J. E. (Mil.), Humble.
McGehee, Frank O., Houston.
*McHenry, Rupert K., Houston.
McIndoe, Frank W., Houston.
McKay, H. E., Jr. (Mil.), Humble.
McKay, Haden E., Sr., Humble.
McKeever, Duncan C. (Mil.), Houston.
McKinney, Mary Ann, Houston.
McMeans, Robt. H., Houston.
McMurrey, Allen L., Houston.
McNeill, A. S., Jr., Houston.
McReynolds, I. S. (Mil.), Houston.
McWilliams, Hamlin K., Waller.
Mabry, James D. (Mil.), Houston.
Mack, Frank A., Galena Park.
Madsen, Alva C., Houston.
Mangum, Hugh J. (Mil.), Houston.
Maresh, Henry R., Houston.
Maresh, Rudolph E., Houston.
Margraves, Ross D. (Mil.), Houston.
Marshall, Reagan M. (Mil.), Houston.
Marshall, Wm. E., Baytown.
Martin, James R.(Mil.), Houston.
Mayfield, Jack H. (Mil.), Houston.
Melton, Walter T. (Mil.), Houston.
Mendell, David (Mil.), Houston.
Messer, Jesse N., Houston.
Meyer, Henry S. (Mil.), Houston.
Meynier, Maurice J (Mil.), Houston.
Miller, Arthur L., Houston.
Mitchell, A. Lane (Mil.), Houston.
Mitchner, James M. (Mil.), Houston.
Mock, Pressley J., La Porte.
Moers, Edwin A., Houston.
Mohle, Flavius D. (Mil.), Houston.
Molloy, James P., Houston.
Montgomery, Chas. F., Houston.
Mood, George F. (Mil.), Houston.
Moody, Betty, Houston.
*Moore, John T. (Emer.), Houston.
Morse, Walter S., Houston.
*Motheral, J. D., Katy.
Moursund, Walter H., Sr., Houston.
Much, Joseph C. (Mil.), Houston.
Mullen, J. A. (Hon.), Houston.
Myers, Claude D., Houston.
*Myers, Leonard A., Houston.
Mynatt, Arthur J. (Hon.), Houston.
*Neely, John W., Houston.
Neres, Fred E., Houston.
Nester, Chas. R. (Mil.), Houston.
Nolan, Leonard S., Houston.
O'Farrell, J. M. (Hon.), Houston.
O'Heeron, Michael K. (Mil.), Houston.
Oldham, Dudley Y. (Mil.), Houston.
Ohlhausen, Sidney G. (Mil.), Houston.
Oliver, J. T., Houston.
Oliver, John S. (Mil.), Houston.
Oliver, Wm. D., Galena Park.
*Orman, McDonald, Houston
Orr, Guy H. (Mil.), Houston.
Osborne, Clarence F. (Mil.), Pasadena.
Osman, Paul M. (Mil.), Houston.
*Overgaard, Anders P. Houston.
Owen, A. George, Houston.
Page, Joseph H. (Mil.), Houston.
Park, James H., Jr., Houston.
Parr, Luther H., Houston.
Parrish, Frank F. (Mil.), Houston.
Parsons, A. M., Houston.
Paton, Donald M. (Mil)., Houston.
Patrick, Ralph C. (Mil.), Houston.
Patterson Robt. T., Houston.
Patteson, James L. (Mil.), Houston.
Pawelek, I. L., Houston.
Pawelek, Louis G., Houston.
Perdue, George W., Houston.
Petersen, Henry A., Houston.
Peterson, Carl A. (Mil,). Houston.
Petri, Karin A., Houston.
Petway, Aileen, Houston.
Petway, Max E. (Mil.), Houston.
Phillips, Elliott S., Houston.
*Phillips, John R., Houston.
Phillips, Leon (Mil.), Houston.
Pipkin, Robt. W., Baytown.
Pittman, James E. (Mil.), Houston.
Podesta, Louis N., Houston.
Pope, A. E. C., Crosby.
Potter, Leo E. (Mil.), Houston.
*Potts, Chas. R., Houston
Powell, Elizabeth B., Houston.
Powell, Norborne B., Houston.
Poyner, Herbert F., Houston.
Pratt, Willard M.. Houston.
*Prince, Homer E., Houston.
Pritchett, I. E., Houston.
Pugsley, Cornelius (Mil.), Houston.
Pulliam, Lawrence T., Houston.
Pulliam, Seeley T., Houston.
Purdie, Robt. M., Houston.
Qualtrough, Walter F., Houston.
Rader, John F., Houston.
Ralston, W. Wallace, Houston.
*Ramsey, Wm. E., Houston.
Raney, Lovell W., Houston.
Ray, John Wyeth, Houston.
Red, W. S., Jr., Houston.
*Reece, Chas. D., Houston.
Reed, Roy W. (Mil.), Houston.
Reinke, Robt. T., Baytown.
Renfrow, W. Frank, Houston.
Roberts, James A. (Mil.), Houston.
*Robertson, Robt. C. L. (Mil.), Houston.
Robey, Grace Lucile, Houston.
Robinett, James B. (Mil.), Houston.
Robins, Bill (Mil.), Houston.
Robbins, E. Freeman, Houston.
*Robison, J. M., Houston.
Rohrer, George E., Jr., Houston.
Rollins, W. J., Houston.
Ruiz, John J., Houston.
Rump, Quah (Mil.), Houston.
Rushing, John B., Houston.
Russell, Thos. G., Houston.
Ryan, Bert M. (Mil.), Houston.
Sacco, Allen C., Houston.
Salerno, Joseph P. (Mil.), Houston.
Salinger, Alfons (Mil.), Houston.
Salley, Calvin W. (Mil.), Houston.
*Sanders, Chas. B., Houston.
Sanderson, Thos. A. (Mil.), Houston.
Sandlin, James W., Beaumont.
Sappington, H. O., Baytown.
Scardino, Peter H., Houston.
Schaefer, John K. (Mil.), Houston.
Schaffer, Elliot N. (Mil.), Houston.
Schaffer, Helen G., Houston.
Schaffer, S. S. (Mil.), Houston.
Schilling, John G., Houston.
Schoepfer, Rene F., Houston.
Schultz, Jacob F. (Mil.), Houston.
Schuster, Louis C., Houston.
Schnur, Sidney (Mil.), Houston.
Scott, Daniel W. (Mil.), Houston.
Seale, Everett R. (Mil.), Houston.
Sears, Ernest S. (Mil.), Houston.
Secrest, P. G., Jr. (Mil.), Houston.
Selders, Raymond K., Houston.
Senglemann, Wilbur A., Houston.
Shaw, Ed N., Houston.
Sherman, James E., Houston.
Sherrill, E. A., Jr. (Mil.), Houston.
Sherrill, E. A., Sr., Houston.
Sherrill, Lloyd H., Houston.
Shirley, Carl W. (Mil.), Houston.
Skogland, John E., Houston.
Slataper, Felician J., Houston.
Smith, Burt B. (Mil.), Houston.
Smith, Benj. F., Houston.
Smith, Clifford T., Houston.
Smith, Edward T., Houston.
Smith, Fred B. (Mil.), Houston.
Smith, J. Murry, Houston.
*Snow, Wm. J., Houston.
Spencer. Walter C. E., Houston.
Spiller, J. B., Houston.
Spivak, Louis J., Houston.
Spurlock, G. H., Houston.
Stackhouse, Howard J. (Mil.), Houston.
Stalnaker, Paul R., Houston.
Sterling, Russell R., Houston.
Stevenson, Wilmer M., Houston.
Stokes, Merle B., Houston.
Stone, Francis E., Houston.
Stork, W. J. (Mil.), Houston.
Stough, John T., Houston.
Strashun, Mat F. (Mil.), Houston.
*Strassmann, Erwin O., Houston.
Strozier, Wm. M., Houston.
Stucki, James M., Houston.
Surgi, Marie L., Houston.
Swetland, Dan R. (Mil.), Houston.
Synnott, Thos. G., Houston.
Tackaberry, Arthur L. W., Houston.
Talley, A. T., Houston.
Taubenhaus, Leon J. (Mil.), Houston.
Taylor, Judson L., Houston.
Taylor, Martin J., Houston.
Theriot, Jos. Roy (Mil.), Houston.
Thoma, Earl W., Houston.
Thomas, Charles, Houston.
Thompson, Benj. D., Houston.
Thorn, S. W., Houston.
Thorning, W. B. (Mil.), Houston.
*Trible, John M., Houston.
Truitt, James Joshua, Houston.
Tucker, J. Norris, Houston.
Turboff, Sidney W. (Mil.), Houston.
Turner, B. Weems, Houston.
Turner, Claude G. (Mil.), Houston.
Tusa, Theo. S., Houston.
Tuttle, L. L. D. (Sec'y), Houston.
Ulert, Izaak A., Houston.
Vanzant, Birto Thos., Houston.
Vanzant, Thos. J. (Mil.), Houston.
Vaughn, Luther M. (Mil.), Houston.
Vick, J. Louise, Houston.
Wachsman, David V., Houston.
Waldron, George W., Houston.
Wall, John A. (Mil.), Houston.
Walker, Joe D., Houston.
*Wallace, Stuart A., Houston.
Wallis, Marshall, Houston.
Ward, Thos. E., Houston.
*Warner, Clyde M., Houston.
Warner, Lucien M., Houston.
*Waters, Chas. R., Highlands.
Watson, Price T. (Mil.), Houston.
Welsh, Hugh C. (Pres.), Houston.
Weisiger, Ross W. (Mil.), Houston.
Westmoreland, James P., Houston.
Westover, Harry M., Houston.
Whitsitt, James J. (Mil.), Houston.
White, Adair W., Houston.
Wible, D. J., Houston.
Wier, Warren M., Houston.
Wigby, Palmer E., Houston.
Wild, Wm. B., Pasadena.
Wilkerson, B. J., Houston.
Wilkerson, Edw. A. (Mil.), Houston.
Williford, L. E. (Mil.), Houston.
Wills, Seward H. (Mil.), Houston.
Wilson, Carl S., Houston.
Windrow, Nuel C. (Mil.), Houston.
Wolf, Edward T. (Mil.), Houston.
Wood, Martha A., Houston.
Wootters, John H., Houston.
Wright, Elva A. (Hon.), Houston.
Wright, Ernest, Houston.
York, Byron P. (Mil.), Houston.
York, John B., Houston.
Young, Carl B., Houston.
Youngblood, J. C. (Mil.), Houston.
Zanek, Otto Louis, Houston.
Zarr, L. Lynn, Houston.
Zax, Emile, Houston.
Zeis, Leander B., Houston.
Zionts, M. A. (Mil.), Houston.

MONTOGMERY COUNTY MEDICAL SOCIETY

Bartell, Jack O., Conroe.
Corrigan, Joseph, Jr., Conroe.
Coker, Geo. B., Tomball.
Falvey, Thomas S., Conroe.
Hailey, Edwin B. (Pres.), Conroe.
Holland, Wm. M., Conroe.
Ingrum, W. P., (Sec'y), Conroe

POLK-SAN JACINTO COUNTIES MEDICAL SICIETY

Bergman, Sol H. (Mil.), Livingston.
Blow, Frank, T., New Willard.
Dameron, J. H. (Mil.), Livingston.
Flowers, William W. (Sec'y), Livingston.
Frink, Berton F. (Mil.), Corrigan.
Gardner, Thos. L., Livingston.
Grimes, Ivison, Camden.
Hale, Douglas M., Cold Springs.
Murphy, Clarence S., Livingston.
Olive, Roy A., Livingston.
Potts, S. E. (Pres.), Corrigan.
Towns, Jas. R. (Hon.), Livingston.

WALKER-MADISON-TRINITY COUNTIES MEDICAL SOCIETY

Anderson, Edgar W., Huntsville.
Angier, Eugene L., Huntsville.
Autrey, S. L., Trinity.
Barnes, Sam R. (Mil.), Trinity.
Black, Frank R., Huntsville.
Briscoe, Sam M. (Pres.), Trinity.
Bush, L. Ewing, (Mil.), Huntsville.
Cole, Charles M., Madisonville.
Cole, Thomas C. (Mil.), Huntsville.
Eberle, Howard J. (Mil.), Madisonville.
Garrett, John C. (Mil.), Huntsville.
Goodrich, Wm. A. (Sec'y), Huntsville.
Heath, Jesse B. (Mil.), Madisonville.
McKay, James A., Madisonville.
*Morris, James E., Madisonville.
Thomason, Robert H. (Mil.), Huntsville.
*Veazey, William B., Huntsville.

WASHINGTON COUNTY MEDICAL SOCIETY

Hasskarl, Robert A. (Pres.), Brenham.
Hasskarl, Walter F., Brenham.
Hodde, Fred H., Brenham.
Hodde, Herman O. (Mil.), Brenham.
Knolle, Roger E., Brenham.
Knolle, Waldo A., Brenham.
*Kusch, G. A. L., Gay Hill.
Nicholson, Richard E., Brenham.
Schoenvogel, Otto F. (Sec'y), Brenham.
Southern, Chas. E., Burton.
Steinback, H. L. (Mil.), Brenham.

TENTH OR SOUTHEASTERN DISTRICT

Dr. A. E. Sweatland, Lufkin, Councilor.

ANGELINA COUNTY MEDICAL SOCIETY

Alexander, C. E., Keltys.
Bledsoe, R. B. (Hon.), Lufkin.
Burch, Joe S., Lufkin.
Childers, Dave M., Lufkin.
Clements, J. C. (Mil.), Lufkin.
Clements, Peyton C., Lufkin.
Dale, John R., Jr., Diboll.
Denman, Byford H. (Sec'y), Lufkin.
*Denman, Linwood H., Lufkin.
Estep, Marshall A., Lufkin.
Forrest, Robert B., Huntington.
Gandy, Orren P., Lufkin.
*Gibson, Mitchell O., Lufkin.
Harrington, E. R., Diboll.
Mathews, R. L. (Hon.), Lufkin.
McCasland, Clifford, Beaumont.
Medford, Ulen G. (Mil.), Lufkin.
Ostendorf, W. A. (Mil.), Lufkin.
Stovall, W. R. (Mil.), Lufkin.
*Sweatland, A. E., Lufkin.
Taylor, Robert W., Lufkin.
Taylor, Thaddeus A. (Pres.), Lufkin.
Tinkle, Lewis T., Lufkin.
Wade, Jack H., Lufkin.

HARDIN-TYLER COUNTIES MEDICAL SOCIETY

*Anderson, Walter W., Kountze.
Barclay, Watt, Woodville.
Beazley, W. H., Silsbee.
*Cox, Walter E., Angleton.
Darby, T. O., Sour Lake.
Fowler, I. R. (Sec'y), Silsbee.
Knight, John A. (Pres.), Voth.
Mann, J. S., Colmesniel.
Lockey, Robt. P., Camp Seale.
Poshataske, Wm. J., Silsbee.
Roark, A. W., Saratoga.
Shivers, John F., Woodville.
Tate, R. A., Kountze.
Waller, Alvin L. (Mil.), Woodville.

JASPER-NEWTON COUNTIES MEDICAL SOCIETY

Berwick, David A., Deweyville.
*Erwin, John H. (Sec'y), Jasper.
Graham, Gideon (Pres.), Newton.
Graham, G. Mason, Bessmay.
Hall, Henry S., Newton.
Hardy, H. W., Jasper.
Kelly, W. R., Jasper.
McCreight, W. F., Kirbyville.
*McGrath, J. J., Jasper.
Monroe, M. L. (Mil.), Jasper.
Richardson, A. J., Jasper.
Seale, James N. (Mil.), Jasper.
Worthy, W. R., Call.

JEFFERSON COUNTY MEDICAL SOCIETY

Alexander, Hugh E., Beaumont.
Allison, F. Peel. (Mil.), Beaumont.
Autrey, A. R., Port Arthur.
Barr, Richard E., Beaumont.
Best, Harvey T., Port Arthur.
Bevil, H. Grady, Beaumont.
Bevil, Jack, Hull.
Bevil, John R., Beaumont.
Bevil, Lamar C. (Mil.), Beaumont.
Beyt, Frank J. (Mil.), Port Arthur.
Blum, S. L. (Mil.), Beaumont.
Boring, C. W., Port Arthur.
Brandeau, W. H., Beaumont.
*Brown, W. D., Beaumont.
Butler, Geo. L. (Mil.), Beaumont.
Bybee, Joe A., Beaumont.
Byram, Dan H. (Mil.), Port Arthur.
Byrd, Lee Roy, Jr. (Sec'y), Port Arthur.
Carroll, Roland B. (Mil.), Port Arthur.
Carter, John H., Beaumont.
Chiasson, Mary P., Beaumont.
Chunn, B. D., Beaumont.
Colby, Fred W. C. (Mil.), Beaumont.
Covode, Wm. M. (Mil.), Port Arthur.
*Crager, J. C., Beaumont.
Crumpler, W. E, Port Arthur.
Crumpler, W. E., Jr. (Mil.), Port Arthur.
Cunningham, M. A., Beaumont.
Curry, Dwight E. (Mil.), Port Arthur.
Darwin, P. S., Beaumont.
Davison, B. Howard, Port Arthur.
Eisenstadt, H. B., Port Arthur.
Elster, Benjamin B., Port Arthur.
Engledow, R. H., Beaumont.
*English, Dudley M. (Mil.), Beaumont.
Fears, T. A. (Mil.), Beaumont.
Ferguson, Edward C., Beaumont.
Fertitta, Julian J., Beaumont.
Fett, Bennie J., Port Arthur.
Fulbright, Carl W., Port Arthur.
*Furey, Ellen D., Beaumont.
Fuselier, J. D., Port Arthur.
Gardner, John N., Beaumont.
Goldblum, Harvey H., Port Arthur.
Graber, W. J. (Mil.), Beaumont.
Granata, Samuel V., Beaumont.
Greenberg, Philip B., Beaumont.
Hager, Dale C., Beaumont.
Harlan, H. D., Beaumont.
Harper, J. Y., Port Arthur.
Hart, Frank B., Beaumont.
Hart, John A. (Mil.), Beaumont.
*Heare, Lewis C. (Mil.), Port Arthur.
Hendry, C. H., Beaumont.
Hines, J. C., Nederland.
Hosen, Harris (Mil.), Port Arthur.
Jackson, J. M., Port Arthur.
Jones, Sullivan Ross, Port Arthur.
Jones, Thos. R. (Mil.), Beaumont.
Kaufman, H. J. (Mil.), Port Arthur.
Killingsworth, W. P. (Mil.), Port Arthur.
Knight, Max J., Port Arthur.
Kuhlman, Frederick Y., Port Arthur.
Laidacker, N. E. (Dead), Nome.
Ledbetter, L. H., Beaumont.
Lewis, Seab J. (Mil.), Beaumont.
Lightfoot, W. D., Beaumont.
Lindsey, Eugene H. (Mil.), Beaumont.
Lowenstein, Jos M.. Port Arthur.
Long, James W. (Mil.), Port Arthur.
Lyons, Sam B., Beaumont.
Makins, James, Port Arthur.
*Mann, D. A., Beaumont.
Markewitch, Jake (Mil.), Beaumont.
Martin, J. D., Beaumont.
Martin, T. W., Port Arthur.
Matlock, Thos. B. (Mil.), Port Arthur.
*McFadden, Irma M., Port Arthur.
McLaughlin, R. L., Beaumont.
McRee, Walter E. (Mil.), Port Arthur.
McRee, Edgar C., Port Arthur.
Meyer, Paul R. (Mil.), Port Arthur.
Middleton, W. C., Beaumont.
Mills, E. D., Beaumont.
Mixson, Harold J., Beaumont.
*Newton, W. A., Beaumont.
Nibling, Boyd (Mil.), Beaumont.
Orrill, R. Ray, Port Arthur.
Pace, B. F. (Mil.), Nederland.
Painton, C. E. (Mil.), Port Arthur.
Pecora, Tony L. (Mil.), Beaumont.
Petit, Paul T., Beaumont.
Pierson, Rogers (Mil.), Beaumont.
Pitre, Roy P. (Mil.), Port Arthur.
*Powell, L. C., Beaumont.
Pruit, L. T. (Mil.), Beaumont.
Raine, M. F., Port Arthur.
Raines, James M., Port Arthur.
Record, Joe, Beaumont.
Richardson, Bruce, Beaumont.
Robert, Wm. Pierre (Mil.), Beaumont.
Sappington, T. B., Port Arthur.
Serafino, L. C., Beaumont.
Shaddock, C. B. (Mil.), Beaumont.
Sladczyk, George (Mil.), Port Arthur.
Smith, John McC. (Mil.), Port Neches.
Smith, Wm. A., Beaumont.
Solis, G. R. (Mil.), Beaumont.
Stephenson, G. B. (Mil.), Beaumont.
Stevens, Robt. B. (Mil.), Beaumont.
Stoeltje, Joe, Beaumont.
Suehs, M. E., Jr., Beaumont.
Sutton, F. W., Beaumont.
Tatum, W. E, Beaumont.
Todd, Chas. Hugh, Jr., Beaumont.
Toomin, Emanuel, Beaumont.
Tumbleson, Talbot A. (Mil.), Beaumont.
Tyndall, Thos. M.. Nederland.
Tyner, Furman H. (Mil.), Port Arthur.
Vaughan, B. H., Port Arthur.
Vaughan, E. W., Port Arthur.
Walker, Taylor C., Beaumont.
Wallace, Wm. G., Beaumont.
Ward, E. G., Beaumont.
Welch, J. G., Port Neches.
White, C. M., Beaumont
White, J. Melton, Port Arthur.
Wier, D. S. (Hon.), Beaumont.
*Wier, Stuart T., Beaumont.
Williams, F. G., Beaumont.
Williford, H. B. (Mil.), Beaumont.
Willoughby, R. C. (Mil.), Groves.
Wilson, I. G. (Mil.), Beaumont.
*Wood, Byron W., Port Arthur.
Woodall, John B., Port Arthur.
Young, Isaac T. (Pres.), Port Arthur.
Young, T. W., Jr., Port Arthur.

LIBERTY-CHAMBERS COUNTIES MEDICAL SOCIETY

Bellamy, Richard C., Daisetta.
Black, Roy C., Cleveland.
Bridges, W. H. (Mil.), Mont Belvieu.
Carr, K. K., Devers.
Clements, E. B., Cleveland.
Delaney, A. L. (Pres.), Liberty.
Fahring, Geo. H., Anahuac.
Fahring, Thos. L. (Mil.), Anahuac.
*Freeman, E. S., El Campo
Griffin, Frank S. (Mil.), Liberty.
Jordan, B. L., Daisetta.
Leggett, Walter, Cleveland.
Richter, Ernest R. (Sec'y), Dayton.
*Shearer, A. R., Mont Belvieu.
Sykes, Everett W., Anahuac.
Tadlock, J. T., Dayton.
Tucker, Eli J., Liberty.

NACOGDOCHES COUNTY MEDICAL SOCIETY

Barham, Geo. S., Nacogdoches.
*Beall, J. Frank (Mil.), Nacogdoches.
Fuller, J. L., Garrison.
McKinney, Edgar P. (Mil.), Nacogdoches.
Middlebrook, Geo. F. (Pres.) Nacogdoches.
Nelson, A. Langston, Nacogdoches.
*Neuville, Carroll F., Nacogdoches.
Payne, C. M., Nacogdoches.
Rulfs, Carl H., San Augustine.
Smith, Clarence T., Nacogdoches.
Tucker, Felix R., Nacogdoches.
Tucker, F. Henry (Sec'y), Nacogdoches.
Tucker, Stephen B., Nacogdoches.

ORANGE COUNTY MEDICAL SOCIETY

Anderson, Roland B., Orange.
Boone, Richard F., Orange.
Buttram, C. A., Orange.
Cecil, John B., Orange.
Clark, James W. (Sec'y), Orange.
deMesquita, Paul B., Orange.
Jones, P. E., Orange.
Kaplan, Hyman J. (Mil.), Orange.
Kelly, Thos. E., Orange
Pearce, H. Wynne, Orange.
Peebles, Felix, Jr., Orange.
Phillips, C. E., Orange.
Richmond, Stanley M., Orange.
Schofield, Elmer Clark, Orange.
Thompson, L. O., Orange.
Weiseth, Warren M., Orange.
Whitehill, Leo Allen, Orange.
Wooley, T. O. (Pres.), Orange.

PANOLA COUNTY MEDICAL SOCIETY

Baker, Chas. D., Carthage.
Boren, S. L., Carthage.
Daniel, Zack L., Gary.
Hooker, Lynn C. (Sec'y), Carthage.
Hull, Charles F. (Pres.), Carthage.
Smith, Arthur L., Houston.

RUSK COUNTY MEDICAL SOCIETY

Abney, Thos. B. (Mil.), Overton.
Allen, Jno. C. (Mil.), Henderson
Birdwell, J. A., Overton.
Boswell, Wm. E., Henderson.
Burns, Coleman C. (Mil.), Henderson.
Carnathan, Wm. G., Henderson
Dawson, C. A. (Sec'y), Minden.
Dean, W. N., Overton.
Deason, Giles A., Henderson.
Deason, Lloyd S. (Mil.), Henderson.
Heiligman, Haskell, Overton.
Hicks, Oliver B., Henderson.
Hilbun, Lynn, Henderson.
Lall, Shiam, Tulsa, Okla.
McNabb, J. F. (Mil.), Price.
Pluenneke, Perry C., Overton.
Ross, Griff, Mt. Enterprise.
Sadler, J. G., Henderson.
Shaw, R. F., Henderson.
Shipp, L. M., Henderson.
Suehs, Herbert A. (Mil.), Henderson.
Watkins, J. E. (Pres.), Henderson.
White, W. P., Henderson.

SHELBY-SAN AUGUSTINE-SABINE-COUNTIES MEDICAL SOCIETY

Bennett, Noel T. (Mil.), San Augustine.
Copeland, Andrew G., Timpson.
Hurst, Thos. L., Center.
Jones, William T., San Augustine.
Oates, Lareid S., Center.
Smith, Gilbert E., Timpson.
Warren, William H. (Sec'y), Center.
Warren, Walter M., Center.
Warren, William S. (Mil.), Center.
Windham, John H., Shelbyville.
Windham, William C. (Pres.), Center.

ELEVENTH OR EASTERN DISTRICT

Dr. A. L. Hathcock, Palestine, Councilor.

ANDERSON-HOUSTON-LEON COUNTIES MEDICAL SOCIETY

Bing, Roland E., Oakwood.
Butler, Charles W., Jr., Crockett.
Carter, J. Weldon (Mil.), Palestine.
Cole, W. A., Normangee.
Davis, W. E., Elkhart.
*Dean, John L., Crockett.
*Felder, Fred E., Palestine.
Funderburk, William O., Elkhart.
*Hathcock, Alfred L., Palestine.
Haverlah, Harry A., Palestine.
Hester, Nell M., Buffalo.
Humphries, John T. (Pres.), Palestine.
Hunter, Ripley H. (Sec'y), Palestine.
Hunter, Rush Q., Palestine.
Joyce, Claude D., Jr., Palestine.
Kennedy, Sam, Grapeland.
King, Marion A., Frankston.
McCreary, S. E. (Mil.), Buffalo.
McLeod, Robert H., Palestine.
Moss, Geo. H., Frankston.
Powell, E. P., Centerville.
Rogers, Jos., Normangee.
Scarborough, E. H., Poynor.
Speegle, Andrew A., Palestine.
Stokes, Paul B., Crockett.
Tenney, Leighton P., Buffalo.
Trice, LeRoy, Palestine.
Wages, Allen D., Palestine.
Wootters, John S., Crockett.

CHEROKEE COUNTY MEDICAL SOCIETY

Adams, Clyde, Nacogdoches.
Bolding, Homer F., Rusk.
Bone, J. N., Jacksonville.
Boyd, J. T. (Mil.), Jacksonville.
Bullion, Chas. F., Dallas.
Burnett, E. W., Rusk.
Cobble, Thos. H. (Sec'y), Rusk.
*Davenport, Halbert (Mil.), Jacksonville.
DuBose, J. L., Wells.
Evans, Charles W., Apple Spring.
Gray, D. F., Houston.
Greenwood, J. T., Ponta.
Hall, Robt. L., Rusk.
Hanretta, A. T., Austin.
Johnson, John F., Rusk.
Kuykendall, M. J., Rusk.
*Lamb, Marvin, Jacksonville.
McDonald, W. A., Alto.
McDougle, John B. (Pres.), Jacksonville.
Moseley, E. M., Rusk.
Ramsey, J. B., Forest.
Scarbrough, Jas. S. (Mil.), Rusk.
Sory, W. H., Jacksonville.
Stripling, C. H., Jacksonville.
*Travis, J. M., Jacksonville.
Travis, L. L., Jacksonville.
Travis, R. T., Jacksonville.
*Urban, Kay B., Rusk.
Wade, David, Rusk.
Wheeler, M. S. (Mil.), Rusk.
Whiteside, Wm. A., Rusk.

FREESTONE COUNTY MEDICAL SOCIETY

Bonner, Leslie L., Fairfield.
Gage, Maurice (Pres.), Teague.
Harrison, Wm. P., Teague.
Headlee, Emory V. (Sec'y), Teague.
McFadden, Wiley, Fairfield.
Sneed, Wm. N., Fairfield.

HENDERSON COUNTY MEDICAL SOCIETY

Baugh, Joseph F., Chandler.
Cockrell, Lonnie L., Athens.
*Geddie, Nolen D., Athens.
Henderson, Roy E., Athens.
Hodge, Robert H., Athens.
Horton, Arthur C. (Pres.), Brownsboro.
Kilman, Prather T., Malakoff.
Moon, Gideon F., Chandler.
Price, Don (Sec'y), Athens.
Schmitt, H. S. (Mil.), Malakoff.
Webster, John K. (Hon.), Athens.

SMITH COUNTY MEDICAL SOCIETY

Bailey, William Marvin (Sec'y), Tyler.
Bell, George Giddon, Tyler.
Birdwell, James W. (Mil.), Tyler.
Bradford, Sidney William, Tyler.
Brown, Glynne, Tyler.
Brown, Irving, Tyler.
Bundy, David Thomas, Tyler.
Cain, William Roy, Tyler.
Caldwell, Elbert H. (Mil.), Tyler.
Clawater, E. W., Tyler.
*Cooke, Lane B. (Mil.), Tyler.
Dickson, James Rucker, Arp.
Faber, Edwin G (Mil.), Tyler.
Faust, John Joseph (Pres.), Tyler.
Gibson, Jesse W., Lindale.
Goldfeder, Jesse (Mil.), Tyler.
*Jarmon, Thomas Marion, Tyler.
Marshall, Robert Lynn, Tyler.
McDonald, Conrad Claborne, Tyler.
Mitchell, John Henry, Tyler.
Moore, Masters H. (Mil.), Tyler.
Neill, Lex T. (Mil.), Tyler.
Pabst, Oscar C. (Hon.), Tyler.
Page, Roy Lee, Tyler.
Pope, Irvin, Jr., Tyler.
Rhine, Leland R. (Mil.), Tyler.
Rice, Elbert Dean, Tyler.
*Ross, William Rutledge, Tyler.
Sehested, Herman C. (Mil.), Tyler.
Shirley, Thomas Clayton, Tyler.
Smith, John C., Winona.
*Thompson, Orion, Tyler.
*Vaughn, Edgar Howell, Tyler.
Vaughn, James M. (Mil.), Tyler.
Walker, U. G. M., Flint.
Willingham, Charles E., Tyler.
Windham, Lynn Burk, Tyler.
Woldert, Albert, Tyler.
*Young, Cuthbert Ben, Tyler.

TWELFTH OR CENTRAL DISTRICT

Dr. G. V. Brindley, Temple, Councilor.

BELL COUNTY MEDICAL SOCIETY

Alsup, Ace H., Temple.
Anderson, Harold B. (Pres.), Temple.
Barnes, Thos. S. (Mil.), Temple.
Bassel, Paul M., Temple.
Blanton, Bassel N. (Mil.), Temple.
Bradfield, Eldon O., Temple.
*Brindley, Geo. V., Temple.
Bunkley, Thalbert F., Temple.
Burow, F. Paul, Killeen.
Caskey, Chas. R., Colorado Springs, Colo.
Chernosky, Wm. A., Temple.
Christian, John J. (Mil.), Temple.
Cooke, Mildred L., Shreveport, La.
Coventry, Wm. V. (Mil.), Temple.
Covington, Chas. M., Austin.
Crumpler, Prentice, Jr., Temple.
Curtis, Raleigh R., Temple.
*Curtis, Richard C., Temple.
DeLaureal, Thos. H. (Mil.), Temple.
Donnelly, V. J. (Mil.), Temple.
Ellis, Ira D., Troy.
*Etter, Wm. F., Rogers.
Fowler, Joe A., Killeen.
Gillespie, Chas. H. (Mil.), Temple.
Gober, Olin B., Temple.
Gober, Olin F., Temple.
Greenlee, Ralph G. (Mil.), Temple.
Greenwood, Jos. H. (Sec'y), Temple.
Hammond, Fred M. (Mil.), Temple.
Harlan, Rudolph K., Temple.
Howell, Floyd W., Temple.
Jenkins, Jesse G., Temple.
Kilman, Jos. R. (Mil.), Temple.
Kirksey, O. T., Jr. (Mil.), Temple.
Longmire, Victor M., Temple.
Maxwell, Walter J., Jr., Temple.
McCelvey, John S., Temple.
McDavitt, Bertha S., Temple.
McKenney, John F. (Mil.), Temple.
Moon, Arthur E., Temple.
*Moreton, Robt. D., Temple.
*Phillips, Charles, Temple.
Pittman, John W., Belton.
*Pollok, Lewis W., Temple.
Potter, Claudia, Temple.
Powell, William N., Temple.
Prieto, Phillip M. (Mil.), Temple.
Ramey, Paul M., Temple.
*Robinson, James E., Temple.
Rodarte, Joseph G., Temple.
*Scott, Arthur C., Jr., Temple.
*Sewell, Harvey W., Belton.
Sewell, Julian G., Belton.
Sherwood, Marcel W., Temple.
Simpson, Chas. M., Temple.
Smith, Travis (Mil.), Temple.
Speed, Terrell, Temple.
Stevenson, Clyde A., Temple.
Stoeltje, Edward C., Rosebud.
Stuart, Lawrence D., Temple.
Sutton, Robt. S., Bartlett.
*Talley, Lewis R., Temple.
Wallace, B. C., Jr. (Mil.), Temple.
Wiedeman, Andrew E., Temple.
Wilson, Claude D. (Mil.), Temple.
Winston, John R., Temple.
Wolf, A. Ford, Temple.
*Woodson, Burbank P., Temple.
Woodson, Warren B., Temple.

BOSQUE COUNTY MEDICAL SOCIETY

Blankenship, W. W., Mosheim.
Calhoun, James S., Walnut Springs.
Cate, Clifton C., Morgan.
Goodall, Van D. (Sec'y), Clifton.
Holt, Russell D., Sr., Cranfills Gap.
*Holt, Russell D., Jr., Meridian.
Long, Austin M. (Pres.), Valley Mills.
Murray, Jas. A., Walnut Springs.
Pike, Arthur N., Iredell.
Shipp, J. R. (Mil), Cranfills Gap.
Witcher, Seth L. (Mil.), Bosque.

BRAZOS-ROBERTSON COUNTIES MEDICAL SOCIETY

Andres, Dwight W., College Station.
Boguskie, William W., Hearne.
Cline, William B., Bryan.
Cummings, Hatch W., Hearne.
Ehlinger, Rancier B., Bryan.
Fox, Kermit W. (Mil.), Bryan.
*Grant, R. B., Jr. (Mil.), Bryan.
Harrison, R. Henry (Mil.), Bryan.
Hunnicutt, Robert J., Bryan.
Marsh, John E., College Station.
Parker, William S., Calvert.
Perry, James S., Bryan.
*Richardson, S. C. (Pres.), Bryan.
Sanders, J. G., Bremond
Searcy, R. M. (Mil.), Bryan.
Searcy, Thomas A. (Mil.), Hearne.
Seastrunk, O. C. (Mil.), Franklin.
Taylor, W. C., Jr. (Mil.), Calvert
Walton, Thomas O., Jr, Bryan.
Walton, Thomas Turner, Bryan.
Wilkerson, Lonnie O., Bryan.
Woodard, Paul A. (Sec'y), College Station.

CORYELL COUNTY MEDICAL SOCIETY

Brown, John T., Gatesville.
Hall, T. M. (Pres.), Gatesville.
Hamilton, J. H., Gatesville.
Haynes, Henry M., Gatesville.
*Jones, Kermit R. (Sec'y), Gatesville.
Lowrey, E. E. (Mil.), Gatesville.
Lowrey, M. W., Gatesville.

ERATH-HOOD-SOMERVELL COUNTIES MEDICAL SOCIETY

Bessonette, W. Van, Stephenville.
*Bryan, T. F., Dublin.
*Cragwall, A. O. (Pres.), Stephenville.
*Currie, A. B., Groveton.
*Guy, W. H., Dublin
*Hanna, J. J., Glen Rose.
Langford, W. L., Hamilton.
Lankford, A. E., Stephenville.
Logsdon, Chas. P. C. (Mil.), Stephenville.
Mulloy, Mary, New Orleans, La.
Mulloy, J. J., Stephenville.
*Terrell, J. C., Stephenville.
Terrell, Vance (Sec'y), Stephenville.
Scherman, Albert J., Stephenville.
Gordon, Thos. M., Abilene.

FALLS COUNTY MEDICAL SOCIETY

Avent, Benjamin M., Rosebud.
Barnett, John B., Marlin.
Barnett, John H., Marlin.
Bennett, A. C. (Mil.), Marlin.
Brown, J. M. (Mil.), Marlin
*Buie, Neil D., Marlin.
Carter, Louian C. (Mil.), Marlin.
Collier, Joel I., Marlin.
Davison, Milton A. (Pres.), Marlin.
Garrett, Henry S., Marlin.
*Glass, Thomas G., Marlin.
Green, John E.,, San Antonio.
Hampshire, George H., Marlin.
Hipps, H. E. (Mil.), Marlin.
Hutchings, Edgar P., Marlin.
Hutchins, Selwyn P. R., Rochester, Minn.

Jansing, Bernard A., Lott.
Smith, Howard O. (Mil.), Marlin.
Smith, Walter S. (Mil.), Marlin.
Swepston, Happy J., Rosebud.
Torbett, J. W., Sr. (Sec'y), Marlin.
Torbett, Jno. Walter, Jr., Orange.
Von Tobel, Albert E., Marlin.
Watts, Samuel A. (Dead), Marlin.

HAMILTON COUNTY MEDICAL SOCIETY

Cleveland, Chas. C. (Sec'y), Hamilton.
Hall, Chas. M. (Pres.), Hico.
Hedges, H. V. (Mil.), Hico.
Kennedy, Francis P., Carlton.
Knight, James B, Hamilton.
Kooken, R. A. (Mil.), Hamilton.
Rawlins, Elbert V., Hamilton.
Talley, Jno. E. (Mil.), Hamilton.
West, Robt. C. (Mil.), Hamilton.

HILL COUNTY MEDICAL SOCIETY

Arledge, Wm. I., Hillsboro.
Barnes, Livingston, Hubbard.
*Barnett, Thos. R., Hillsboro.
Beskow, Richard N. (Pres.), Hillsboro.
Boyd, James E. (Sec'y), Hillsboro.
Buie, James S., Mertens.
*Campbell, Clark C., Itasca.
*Foster, Dee R., Itasca.
*Garrett, Chas. A., Hillsboro.
Hunt, John D., Aquilla.
Jenkins, Gaines H., Bynum.
Mahaffey, Howard A., Hillsboro.
McDonald, J. Frank, Hillsboro.
McKown, Jas. S. (Hon.), Osceola.
McPherson, A. B. (Hon)., Lovelace via Hillsboro.
McPherson, Garland (Mil.), Hillsboro.
Morris, Thos. M., Mount Calm.
Sammons, Howard P., Hubbard.
Sims, Foster D., Rusk.
*Smith, Ben C., Hillsboro.
Smith, Nellins C. (Mil.), Hillsboro.
Treat, Wm. F., Whitney.
Zacharias, O. G., Topeka, Kans.

JOHNSON COUNTY MEDICAL SOCIETY

Anderson, C. C., Venus.
*Ball, W. P., Cleburne.
Bradford, C. C., Godley.
Cooke, C. C., Cleburne.
Cummings, Wm. J., Alvarado.
Dennis, Mills, Cleburne.
Edgar, C. L., Cleburne.
Honea, Thos. C. (Mil.), Cleburne.
Jowell, C. C. (Sec'y), Cleburne.
Kimbro, Robt. W. (Mil.), Cleburne.
Knox, M. T. (Pres.), Cleburne.
Little, John G., Cleburne.
Pickens, Jay W. (Mil.), Cleburne.
Rudd, Lawrence H. (Mil.), Burleson.
Stallcup, J. M., Cleburne.
Washburn, W. R., Cleburne.
Yater, T. F. (Mil.), Cleburne.
Yater, R. E. Lee, Cleburne.

LIMESTONE COUNTY MEDICAL SOCIETY

*Brown, Marion M. (Sec'y), Mexia.
Christoffer, Oscar T. (Pres.), Mexia.
Cox, Stanley (Mil.), Groesbeck.
Cox, Jos. Wilmer, Groesbeck.
Cromeans, Randall E., Mexia.
Edgar, Cecil C., Mexia.
Guillory, Thomas A., Groesbeck.
McKenzie, Casimir P., Mexia.

McLENNAN COUNTY MEDICAL SOCIETY

Aide, Lewis G., Bellmead.
Alexander, Boyd D., Waco.
Alexander, R. B., Waco.
Anspach, Harold M. (Mil.), Waco.
*Aynesworth, Horace T., Waco.
Aynesworth, Kenneth H., Waco.
Aynesworth, M. Brian (Mil.), Waco.
Barnes, Maurice C. (Mil.), Waco.
Black, W. A. (Mil.), Waco.
Bell, R. B., Waco.
*Bradford, J. C., Mart.
Brooks, C. H., Waco.
Bullard, Ray E. (Mil.), Waco.
Burgess, John L. (Mil.), Waco.
Cannon, I. F., Mart.
Carlisle, Margill C. (Mil.), Waco.
Catto, Chas. G. (Pres.), Waco.
Coffeit, Ralph L. (Mil.), Waco.
Colgin, I. E., Waco.
Collins, Chas. E., Waco.
Collom, C. C., Mart.
*Connally, H. F., Waco.
Crosthwaite, R. Wilson, Waco.
Crosthwaite, Wm. L., Waco.
*Dudgeon, H. R., Sr., Waco.
Dudgeon, H. R., Jr. (Mil.), Waco.
*Earle, Hallie, Waco.
Edwards, Tom G. (Mil.), McGregor.
Garrett, James M., Waco.
Germany, H. J., Waco.
Gidney, Wm. H., West.
Goodmann, Aubrey L., Waco.
Hale, James W. (Hon.), Waco.
Hale, Robt. A., Waco.
Hanks, Robert J. (Sec'y), Waco.
Harrington, John T., Waco.
*Hawkins, Eugene W., McGregor.
Hawkins, W. W. (Mil.), McGregor.
Hoehn, F. Wm., Waco.
Jaworski, H. (Mil.), Waco.
Jenkins, I. Warner, Waco.
Johnson, Ernest A., McGregor.
Kee, John L., Waco.
Kirby, Floyd F., Waco.
Klatt, Wesley W., Waco.
Kochmann, Walter P., Waco.
Lattimore, John E., Waco.
Lovelace, Carl, Waco.
Manske, A. O. (Mil.), Waco.
*McCauley, E. R., Moody.
Mewshaw, R. E. L., Waco.
Milam, E. A., Waco.
Miller, C. F., Waco.
Murphey, Paul C., Waco.
Nail, W. R., Waco.
Naylor, L. F., Waco.
Oliver, Tom M. (Mil.), Waco.
*Powell, Eugene V., Waco.
Power, Paul H., Waco.
Rayburn, Clute E., Waco.
Reese, C. H., Waco.
Roddy, L. H., Waco.
Sadler, Leslie R. (Mil.), Waco.
Scanio, Thomas J. (Mil.), West.
Shipp, W. R. F., Lorena.
Simpson, Neill (Mil.), Waco.
Smith, Carol C. (Mil.), Mart.
Smith, Edward, Waco.
Souther, Wm. L., Waco.
Spencer, Shelby C., Waco.
Stanislav, Frank J., Waco.
Tabb, T. E., Waco.
Thompson, John R., McGregor.
Traylor, Clayton J. (Mil.), Waco.
Trice, Wm. G., Waco.
Trippett, Horace H. (Mil.), Waco.
Warren, D. D., Waco.
Wells, W. Howard (Mil.), Waco.
*Wermer, Paul, Waco.
Witte, Wallace S., Waco.
Wood, R. Spencer, Waco.
Wood, W. A. (Hon.), Waco.
Woolsey, Fleta G., Waco.
Woolsey, Henry U., Waco.
*Woolsey, W. Jinkens, Waco.

MILAM COUNTY MEDICAL SOCIETY

Avent, W. W. (Mil.), Cameron.
Barkley, Thomas S., Rockdale.
Coulter, Hiram T., Rockdale.
*Crump, Thomas E. (Sec'y), Cameron.
Denson, Thomas L. (Pres.), Cameron.
Epperson, Albert S., Houston.
Fontaine, William J., Jones Prairie.
Hubert, Jone S., Cameron.
Johnson, Cullen D., Thorndale.
Newton, William R., Jr., Cameron.
Poetter, Henry W. (Mil.), Cameron.
Reed, Roy G. (Mil.), Cameron.
*Rischar, Eduard, Cameron.
Sessions, Isaac P., Rockdale.
Somer, Frank A., Cameron.
*Swift, Clifford G., Cameron.

NAVARRO COUNTY MEDICAL SOCIETY

Bowmer, Otho C., Corsicana.
Burnett, Samuel H., Corsicana.
Carter, Will W., Corsicana.
Daniel, Joseph S., Corsicana.
*David, J. Wilson (Sec'y), Corsicana.
Evans, Edward L., Frost.
Hamill, Dan B. (Mil.), Corsicana.
Kelton, Leslie E., Corsicana.
Logsdon, Wm. K., Corsicana.
McClung, John E., Corsicana.
Miller, Dubart, Corsicana.
*Miller, Will M., Corsicana.
Newton, Earl H. (Pres.), Corsicana.
Sanders, Gurley H., Kerens.
Shell, Wm. T., Jr., Corsicana.
Shell, Wm. T., Sr, Corsicana.
Sneed, W. R. (Mil.), Corsicana.
Stroud, C. S. (Mil.), Corsicana.
Wills, Thomas O, Corsicana.

THIRTEENTH OR NORTHWESTERN DISTRICT

Dr. O. B. Kiel, Wichita Falls, Councilor.

BAYLOR-KNOX-HASKELL COUNTIES MEDICAL SOCIETY

Barber, Lyman A., Seymour.
Bunkley, John F., Seymour.
*Edwards, Thos. S., Knox City.
Eiland, David C. (Pres.), Munday.
Foy, James W., Seymour.
Frizzell, Thos. P., Knox City.
Heard, Eli F., Goree.
Hudson, Isaac F. (Mil.), Stamford.
Johnson, Chas. E., Seymour.
Kimbrough, E. M. (Mil.), Haskell.
Lowry, Robt. K., Seymour.
Newsom, Robt. L. (Sec'y), Munday.
Phillips, Gordon C. (Mil.), Haskell.
Rogers, Madison W., Rule.
Scott, Frank C., Haskell.
Smith, Arthur A., Munday.
Taylor, Wm. M., Goree.
Williams, Temple W., Haskell.
Youngblood, John W. (Mil.), Stamford.

CLAY-MONTAGUE-WISE COUNTIES MEDICAL SOCIETY

Balch, Edwin H., Petrolia.
*Buchanan, E. B., Nocona.
Carmen, E. M., Vashti.
Crook, L. F., Bellevue.
*Darwin, J. T. (Sec'y), Decatur.
Davis, W. W., Nocona.
Greer, Albert, Henrietta.
Harris, E. P., Bowie.
Inabnett, W. T., Decatur.
*Lawson, J. T., Bowie.
Patton, F. M., Henrietta.
Riley, David C., Alvord.
Rogers, T. G., Decatur.
Russell, W. L., Rhome.
*Watson, O. M., Jr. (Pres.), Bridgeport.
*Wright, E. W., Bowie.

EASTLAND-CALLAHAN COUNTIES MEDICAL SOCIETY

Ball, D., Cisco.
Blackwell, Ed C., Gorman.
Blackwell, Geo. T., Gorman.
Brazda, Adolph W. (Mil.), Ranger.
Brown, Lovell C. (Pres.), Eastland.
Carter, Chas. H., Eastland.
*Caton, James H., Eastland.
Clark, Floyd E., Cisco.
Dill, John R., Rising Star.
Graham, E. L., Cisco.
Howard, Isaac M., Ranger.
Isbell, F. T., Eastland.
Jackson, Thos. G., Carbon.
Jackson, C. L. (Mil.), Ranger.
Jackson, Walter L., Ranger.
Kuykendall, P. M., Ranger.
Lee, Wm. P., Cisco.
Powell, Eli, Cross Plains.
Rodgers, David V., Gorman.
*Stubblefield, M. L. (Sec'y), Gorman.
Stubblefield, R. L. (Mil.), Koch, Mo.
*Townsend, Edwin R., Eastland.
Wier, A. K., Ranger.

PALO PINTO-PARKER COUNTIES MEDICAL SOCIETY

Allen, Platt L. (Mil.), Weatherford.
Bruce, R. G. (Mil.), Mineral Wells.
Evans, Andrew J., Mineral Wells.
Gore, W. A. (Mil.), Camp Wolters.
*Johnson, J. Edward (Pres.), Austin.
Lasater, Waldo B. (Sec'y), Mineral Wells.
McCall, James D. (Mil.), Mineral Wells.
McCloud, Ben L., Jr. (Mil.), Graford.
McCracken, J. H., Mineral Wells.
Patterson, A. M., Dallas.
Pedigo, Paul C. (Mil.), Strawn.
Pedigo, Wm. S., Strawn.
Roan, Leo N., Weatherford.
Roberson, John F., Gordon.
Rohrer, Wm. M., Springtown.
*Russell, Earl M., Weatherford.
*Simmons, Phil R., Weatherford.
Smith, John E., Weatherford.
*Smith, Robt. H., Palo Pinto.
Spratt, John T., Mingus.
*Williams, Chas. B., Mineral Wells.
Williams, Chas. R. (Mil.), Mineral Wells.
Wright, Jas. B., Weatherford.
*Yeager, Edward F., Mineral Wells.

STEPHENS-SHACKLEFORD-THROCKMORTON COUNTIES MEDICAL SOCIETY

Berry, W. L., Throckmorton.
Cartwright, H. H., Breckenridge.
Forrester, R. E., Moran.
Guinn, W. B., Breckenridge.
*Harrell, J. E., Throckmorton.
Kessler, Calvin M., Breckenridge.
Murrie, R. G., Albany.
Parks, W. S. (Pres.), Breckenridge.
Payne, Frank C. (Mil.), Breckenridge.
Turner, C. A., Woodson.
*Webb, W. T., Breckenridge.
Wood, G. C., Breckenridge.
*Youngblood, D. J. R. (Sec'y), Breckenridge.

TARRANT COUNTY MEDICAL SOCIETY

Allen, Daisy E., Fort Worth.
Althaus, J. W. A. (Mil.), Fort Worth.
Allison, J. A., Grapevine.
Allison, Wilmer L., Fort Worth.
Alspaugh, H. B., Duncan, Okla.
Anderson, J. V., Fort Worth.
*Anderson, R. B., Fort Worth.
*Andujar, John J., Fort Worth.
*Anthony, E. E., Fort Worth.
Anthony, F. H., Fort Worth.
Antweil, A., Fort Worth.
Armstrong, W. F., Fort Worth.
*Axtell, Earl C., Fort Worth.
Baker, R. G., Fort Worth.
Bailey, Noel R. (Mil.), Fort Worth.
*Ball, Bert C., Fort Worth.
*Ball, Chas. E., Fort Worth.
*Barcus, W. S., Fort Worth.
Barker, Robt. C. (Mil.), Fort Worth.
Barrett, I. P., Fort Worth.
*Barrier, Chas. W., Fort Worth.
Beall, Frank C., Fort Worth.
*Beall, K. H., Fort Worth.
Beaton, Hugh, Fort Worth.
*Beavers, G. H., Jr., Fort Worth.
Bennett, Jerrell, Fort Worth.
*Bobo, Zack, Jr., Arlington.
*Bond, Tom B., Fort Worth.
Bonelli, Victor E., Fort Worth.
Borough, L. D. (Mil.), Fort Worth.
*Bowden, Andy J., Jr. (In.), Fort Worth.
Brasher, R. V. (Mil.), Fort Worth.
Braselton, C. W. (Mil.), Fort Worth.
Brewster, C. Burke (Mil.), Fort Worth.
Brown, Arthur, Fort Worth.
Brown, J. Hyal, Fort Worth.
*Brown W. Porter, Fort Worth.
Burgess, R. M., Fort Worth.
Bursey, E. H., Fort Worth.
Campbell, J. F., Fort Worth.
Carpenter, N. C., Fort Worth.
Cassidy, John M. (Mil.), Fort Worth.
*Chambers, James O., Fort Worth.
Chilton, W. E., Fort Worth.
Chorn, E. H. (Mil.), Fort Worth.
Church, John M. (Mil.), Fort Worth.
Clayton, Chas. F., Fort Worth.
Cochran, J. R. (Mil.), Fort Worth.
Coffey, Alden, Fort Worth.
Cohn, Maurice H., Fort Worth.
Collins, J. D., Arlington.
Cook, W. G. (Hon.), Fort Worth.
Covert, J. D., Fort Worth.
*Crabb, M. H., Fort Worth.
Crawford, Wm. M. (Mil.), Fort Worth.
Cross, T. J., Fort Worth.
Cummins, J. B., Fort Worth.
Cyrus, E. M., Jr. (Mil.), Fort Worth.
Daly, Jack E., Fort Worth.
Davis, Edwin (Dead), Fort Worth.
Davis, James H. (Mil.), Fort Worth.
*Day, Giles W., Fort Worth.
Deaton, H. O., Fort Worth.
Ditto, H. Howard, Fort Worth.
Doss, A. Keller, Fort Worth.
*Doss, Doyle J. (In.), Fort Worth.
Douglass, Hal C., Fort Worth.
*Dunn, Nelson L., Fort Worth.
Duringer, W. C., Fort Worth.
Dryden, Sam H. (Mil.), Fort Worth.
Emery, Oscar J., Fort Worth.
Enloe, Geo. R., Fort Worth.
Eschenbrenner, J. W. (Mil.), Fort Worth.
Farrington, N. C. (Mil.), Fort Worth.
Fershtand, J. B. (Mil.), Fort Worth.
*Foster, Wm. C., Handley.
Funk, Theron H. (Mil.), Fort Worth.
Francis, F. W., Fort Worth.
*Furman, Jack M., Jr., Fort Worth.
*Furman, John M., Fort Worth.
Garnett, J. W., Jr. (Mil.), Fort Worth.
*Garrett, C. C., Fort Worth.
Givens, J. M., Fort Worth.
*Godley, L. O., Fort Worth.
Goldberg, A. I., Fort Worth.
Goldberg, Morton M. (Mil.), Fort Worth.
*Goodman, T. L., Fort Worth.
*Gough, R. H., Fort Worth.
Grammer, J. H. (Mil.), Fort Worth.
Grammer, R. B., Fort Worth
Greines, Abe, Fort Worth.
Greve, Anna M., Fort Worth.
Grice, Thos. W., Fort Worth.
Griffin, H. B. (Mil.), Fort Worth.
Grogan, O. R., Fort Worth.
*Grogan, R. L., Fort Worth.
*Guerre, R. Lopez, Fort Worth.
Griffith, M. A., Fort Worth.
Hahn, W. B. (Mil.), Fort Worth.
Hall, E. P., Fort Worth.
Hall, E. P., Jr. (Mil.), Fort Worth.
Hallmark, J. A. (Mil.), Fort Worth.
Halpin, Frank W. (Mil.), Fort Worth.
*Hancock, E. C., Arlington.
Harkins, T. A., Jr. (Mil.), Fort Worth.
Harper, H. W., Jr, Fort Worth.
Harris, Chas. H., Fort Worth.
Harris, C. H. II (In.), Camp Cooke, Calif.
Harris, Earl, Fort Worth.
Havard, C. A., Morrows, La.
Hawker, L. J. (Mil.), Fort Worth.
Hawkins, C. P. (Mil.), Fort Worth.
Hayes, C. F., Fort Worth.
Helbing, H. V, Fort Worth.
Hewatt, J. W. (Mil.), Fort Worth.
Hiett, Carey, Fort Worth.
*Hightower, L. P., Fort Worth.
Higgins, W. P., Jr. (Mil.), Fort Worth.
Hood, Grace H., Fort Worth.
Hook, J. H. (Mil.), Fort Worth
Horn, J. Morris (Mil.), Fort Worth.
*Horn, Will S., Fort Worth.
*Howard, E. L., Fort Worth.
Howard, Rex J. (In.), Fort Worth.
Howard, Rex Z., Fort Worth.
Howell, Wm. L. (Mil.), Fort Worth.
Huffman, A. M., Fort Worth.
Hulsey, Sim (Mil.), Fort Worth.
Hyde, X. R., (Sec'y), Fort Worth.
Isaacks, Hub E. (Mil.), Fort Worth.
*Jackson, A. E., Fort Worth.
Jackson, H. T., Fort Worth.
Jagoda, Samuel, Fort Worth.
*Jenkins, Wesley N., Fort Worth.
*Jeter, T. M., Fort Worth.
*Johnson, James L. (In.), Fort Worth.
Kelley, J. A. (Hon.), Fort Worth.
Key, W. F. (Hon.), Fort Worth.
Kibbie, Horace K. (Mil.), Fort Worth.
Kibbie, Kent V., Fort Worth.
Kingsbury, H. B., Fort Worth.
Kramer, J. T., Fort Worth.
Lace, W. T. (Mil.), Fort Worth.
Lacy, Geo. W. (Mil.), Fort Worth.
*Lackey, Wm. C., Fort Worth.
*Ladd, A. D., Fort Worth.
Lange, A. A., Fort Worth.
*Lauderdale, T. L., Fort Worth.
Lawson, J. Mack, Fort Worth.
Lees, C. R. (Mil.), Fort Worth.
*Lenox, W. R, Fort Worth.
*Leon, William R., Fort Worth.
Levy, Louis J. (Mil.), Fort Worth.
Lorimer, W. S., Fort Worth.
Lyle, Judge M., Fort Worth.
Major, A. D. (Mil.), Fort Worth.
Mallard, R. S., Fort Worth.
Marquart, Philip B. (Mil.), Fort Worth.
Matheson, D. N., Fort Worth.
*McCarroll, M. C. (In.), Fort Worth.
McCollum, Chas. H., Jr. (Mil.), Fort Worth.
McDonald, R. P. (Mil.), Fort Worth.
McKean, R. W., Fort Worth.
McKee, Frank, Fort Worth.
McKenzie, Walten H. (Mil.), Fort Worth.
McKissick, J. F., Arlington.
McKnight, W. B. (Hon.), Mansfield.
McKnight, W. H., Fort Worth.
McLean, J. H., Fort Worth.
*McVeigh, J. F., Fort Worth.
Mitchell, Gatlin (Mil.), Fort Worth.
Montgomery, Hazel I., Fort Worth.
Morris, A. J. (Mil.), Fort Worth.
Mulkey, Young J., Fort Worth.
Munter, Craig, Fort Worth.
*Murchison, S. J. R., Fort Worth.
Myers T. B. (In.), Carlisle Barracks, Pa.
*Needham, R. H., Fort Worth.
*Neighbors, DeWitt, Fort Worth.
*Nesbit, P. M., Arlington.
Nies, W. B., Fort Worth.
*O'Bannon, R. P., Fort Worth.
O'Reilly, John J. (Mil.), Fort Worth.
*Ott, W. O., Fort Worth.
*Owen, May, Fort Worth.
Parsons, W. F. (Mil.), Fort Worth.
Perrine, Holmes E., Fort Worth.
Petta, Walter B. (Mil.), Fort Worth.
Phillips, O. M. (Mil.), Fort Worth.
Phillips, W. G., Fort Worth.
Ponton, A. R. (Dead), Fort Worth.
Ponton, A. R., Jr. (In.), Fort Worth.
Potts, John, Fort Worth.
Price, S. A. (Mil.), Fort Worth.
*Pumphrey, A. B., Fort Worth.
Radtke, H. P., Fort Worth.
*Rathgeber, Van D., Fort Worth.
*Renshaw, H. S. (Mil.), Fort Worth.
*Reeves, L. H., Fort Worth.
*Richardson, J. J., Fort Worth.
Roberts, A. D. (Mil.), Fort Worth.
*Roberts, A. L., Fort Worth
Roberts, Lily, Fort Worth.
Rogers, E. D., Fort Worth.
*Rogers, Reviere L. C., Fort Worth.
Rumph, D. M., Fort Worth.
*Rumph, Mal, Fort Worth.
Rumph. T. G., Fort Worth.
*Sanders, Frank G. (Pres.), Fort Worth.
Saunders, R. F., Fort Worth.
*Schenck, C. P., Fort Worth.
*Scobee, R. G. (Mil.), Fort Worth.
Schoolfield, E. C., Fort Worth.
*Schoonover, Frank S., Fort Worth.
*Schwarz, E. G., Fort Worth.
Sewell, J. H., Fort Worth.
Sewell, Robt. L., Fort Worth.
Shaw, Enos L., Fort Worth.
Sheddan, Frank G., Fort Worth.
Shelley, Harold J., Fort Worth.
Shilling, Harold C. (Mil.), Fort Worth.
Siddons, Geo. Y. (Mil.), Fort Worth.
Simon, John Jr. (In.), Fort Worth.
Shoemaker, J. W., Fort Worth.
*Smith, Wallace B., Fort Worth
Snyder, F. L., Fort Worth.
*Spencer, Robt. S. (In.), Fort Worth.
*Spivey, J. L., Fort Worth.
Stanfield, J. A. (Hon.), Fort Worth.
Steger, J. A. (Mil.), Fort Worth.
*Stout, S. E., Fort Worth.
Stow, R. C., Jr. (Mil.), Fort Worth.
Sumner, W. W. (Mil.), Fort Worth
Swift, W. B., Fort Worth.
Tadlock, M. E., Fort Worth.
*Tatum, W. C., Fort Worth.
*Taylor, Elizabeth A., Fort Worth.
*Taylor, Holman, Fort Worth.
*Terrell, C. O., Fort Worth.
Terrell, C. O., Jr., (Mil.), Fort Worth.
*Terrell, T. C., Fort Worth.
*Thomas, H. C., Fort Worth.
*Thomason, T. H., Fort Worth.
Thompson, W. R. (Emer.), Fort Worth.
Tom, John C., Jr., Fort Worth.
*Tottenham, J. W., Fort Worth.
Tottenham, J. W., Jr. (Mil.), Fort Worth.
*Touzel, C. S. E., Fort Worth
Trigg, Henry B., Fort Worth.
Trigg, Ross, Fort Worth.
Tucker, J. T., Fort Worth.
Van Zandt, I. L., Fort Worth.
Walker, Webb, Fort Worth.
Waltrip, P. M., Jr. (Mil.), Fort Worth.
Webb, Wm. S., Fort Worth.
Wells, Cora V., Rogers.
West, W. B. (Mil.), Fort Worth.
White, R. J., Fort Worth.
Wier, Edward M., Fort Worth.
*Wiggins, John A., Jr., Fort Worth.
*Williams, Harold M., Fort Worth.
Wise, J. R., Fort Worth.
*Wolford, R. B., Fort Worth.
Woodward, C. S., Arlington.
Woodward, M. Lee (Hon.), Deming, N. M.
*Woodward, Valin R., Arlington.
Wooten, J. H. (Mil.), Fort Worth.
Worden, R. W. (Mil.), Fort Worth.
Wright, J. Walker, Fort Worth.
Wyss, Herbert E., Keller.

TAYLOR-JONES COUNTIES MEDICAL SOCIETY

Adams, C. E. (Mil.), Abilene.
Adamson, W. B. (Mil.), Abilene.
Alexander, J. M., Abilene.
Bailey, S. W. (Mil.), Abilene.
*Bass, T. B., Abilene.
Beckman, M. A., Abilene.
Boyd, Virginia H., Abilene.
Burditt, J. N., Abilene.
Campbell, M. E., Abilene.
Cash, W. Auda V., Abilene.
Clark, J. Frank, Abilene.
Cockrell, E. R. (Mil.), Abilene.
*Crow, Jack A. (Mil.), Abilene.
Curb, Delos G. (Mil.), Albany.

DeWitt, Robt. E. (Dead), Abilene.
Duff, J. C. (Sec'y), Anson.
Estes, J. M., Jr. (Mil.), Abilene.
*Estes, Sol B., Abilene.
Gardner, Chester B., Merkel.
*Gibson, J. P., Abilene.
Gray, Geo. A. (Mil.), Abilene.
Hedrick, T. Wade, Abilene.
Hodges, Frank C. (Mil.), Abilene.
Hollis, L. W., Jr., Abilene.
Hollis, Scott W., Abilene.
*Hudson, F. E., Stamford.
Johnson, L. F. (Pres.), Abilene.
*Kirkpatrick, R. B., Abilene.
Leggett, Claude B., Abilene.
Little, O. W., Abilene.
Magee, J. D., Jr. (Mil.), Abilene.
*Mathews, W. J., Abilene.
McCreight, Wm. J., Anson.
McDonald, Donald H. (Mil.), Stamford.
McFadden, C. A. (Mil.), Abilene.
Metz, L. F., Stamford.
Middleton, E. E. (Mil), Abilene.
Pattillo, Guy L. (Mil.), Abilene.
Pickard, L. J., Abilene.
Prichard, C. L., Abilene.
Pope, A. J., Abilene.
*Ramsey, Wayne V., Abilene.
Rhodes, B. F., Abilene.
Sadler, Wm. T., Merkel.
Seale, Wm. Hubert (Mil.), Abilene.
Sellers, Erle D., Abilene.
Shearer T. Palmer (Mil.), Abilene.
Shytles, H. W. Grady, Abilene.
Smith, Newton J., Anson.
*Snow, Wm. R., Abilene.
Swan, Henry A., Abilene.
Southard, Dallas, Stamford.
Thurman, Geo. D., Abilene.
*Tull, Raymond H., Abilene.
*Varner, R. W. (Mil.), Abilene.
Williams, Chas. F., Abilene.
Williams, W. H. (Mil.), Abilene.
Whiting, Edward T. (Mil.), Abilene.

WICHITA COUNTY MEDICAL SOCIETY

Adams, W. B., Wichita Falls.
Adams, Walter B., Jr. (Mil.), Wichita Falls.
Arrington, John A. (Mil.), Wichita Falls.
Atkinson, Curtis, Wichita Falls.
Bailey, E. B., Wichita Falls.
Bishop, W. A. (Mil.), Wichita Falls.
*Bradley, David F., Wichita Falls.
Brown, Chas. H. (Mil.), Wichita Falls.
Carpenter. Phillip A., Burkburnett.
Caskey, Marion W., Wichita Falls.
Clark, Gordon G., Iowa Park.
*Collard, Felix R., Wichita Falls.
Collins, Bailey R., Wichita Falls.
Collins, Robt. P. (Mil.), Wichita Falls.
Cramer, S. E. (Hon.), Electra.
Crump, Wm. E., Wichita Falls.
Daily, Robt. W. L. (Mil.), Wichita Falls.
Dorbandt, B. W., Wichita Falls.
Egdorf, Otto C., Wichita Falls.
Fish, P. E., Electra.
Frey, Conrad, Wichita Falls.
Gentry, Patti Fay, Wichita Falls.
Glover, L. A., Wichita Falls.
Glover, M. H., Wichita Falls.
Guest, J. C. A., Wichita Falls.
Hall, J. D., Wichita Falls.
Hargrave, Robt. L. (Hon.), Wichita Falls.
Hargrave, Robt. Lee (Mil.), Wichita Falls.
*Harrison, W. G., Jr., Wichita Falls.
Hartsook, Chas. R., Wichita Falls.
Heymann, J. A. (Pres.), Wichita Falls.
Holland, L. B., Wichita Falls.
Howser, John P., Wichita Falls.
Hyde, T. L. (Mil.), Wichita Falls.
Johnson, Jas. A., Wichita Falls.
*Kanaster, Joe E., Wichita Falls.
*Keil, O. B., Wichita Falls.
Kimbrough, O. T., Wichita Falls.
Landon, F. R., Wichita Falls.
Leach, Austin F., Wichita Falls.
Ledbetter, Harry P., Wichita Falls.
Ledford, H. P., Wichita Falls.
Lee, Q. B., Wichita Falls.
Little, J. A., Wichita Falls.
Little, R. D. (Mil.), Wichita Falls.
Lowry, W. P., Wichita Falls.
Lynch, Thos. C., Wichita Falls.
Manar, Roger W. (Sec'y), Wichita Falls.
Mangum, Carl E., Wichita Falls.
Mast, John R. (Mil.), Wichita Falls.
McConchie, R. D. (Mil.), Wichita Falls.
McCurdy, Thos. C., Archer City.
Meredith, D., Wichita Falls.
*Monroe, Chas. W., Electra.
*Nail, J. B., Wichita Falls.
*Nelson, R. L., Wichita Falls.
Ogden, W. H., Electra.
Parker, W. L., Wichita Falls.
Parmley, T. H., Electra.
Parnell, L. D., Wichita Falls.
Pattillo, A. D., Jr. (Mil.), Wichita Falls.
*Pierce, A. W. (Mil.), Wichita Falls.
Powers, Wm. L. (Mil.), Wichita Falls.
Prichard, H. D., Wichita Falls.
*Reagan, John R., Wichita Falls.
Robertson, D. L. (Mil.), Wichita Falls.
Rosenblatt, Wm. (Mil.), Wichita Falls.
*Robbins, Lewis C., Wichita Falls.
Rundell, Wm. K., Wichita Falls.
*Russell, Isaac D., Burkburnett.
Seay, Joe A., Wichita Falls.
Seibold, Geo. J. (Mil.), Wichita Falls.
Singleton, Geo. T., Wichita Falls.
Smith, M. J. (Mil.), Wichita Falls.
*Smith, P. K., Wichita Falls.
Sullivan, Harvey C., Burkburnett.
*Whiting, Walter B., Wichita Falls.
*Wilcox, C. A., Wichita Falls.
Wilson, O. W., Wichita Falls.

WILBARGER COUNTY MEDICAL SOCIETY

Borchardt, Alvin L., Vernon.
Coleman, Wm. C. (Sec'y), Vernon.
Hollar, Emory D., Vernon.
Juhl, Otto J. (Mil.), Vernon.
Miller, Bradford W. (Pres.), Vernon.
Moore, Wm. R., Vernon.
Muirhead, James J. (Mil.), Vernon.
Reger, Howard J., Vernon.
Rogers, Albert C., Vernon.
Shipman, Joe, Vernon.
Stokes, Robert C. (Mil.), Vernon.

YOUNG-JACK-ARCHER COUNTIES MEDICAL SOCIETY

Conner, Paul K., Jacksboro.
Devine, Blaine, Graham.
Edwards, B. F. (Mil.), Graham.
Fillmore, Rollin S. (Mil.), Jacksboro.
Griffin, B. B., Graham.
*Griffin, H. E., Graham.
Harrell, Fred S. (Mil.), Marfa.
Lovett, J. P. (Mil.), Olney.
Lovett, R. E. (Mil.), Olney.
McClure, C. C., Jacksboro.
McKinney, H. C., Olney.
Meredith, E. Filmore (Sec'y), Olney.
Oates, K. D., Graham.
Padgett, W. O., Graham.
Rosser, Virgil O., Jr., Graham.
Winstead, D. Edgar (Mil.), Graham.
Woods, David R. (Pres.), Olney.
Woods, John E., Megargel.

FOURTEENTH OR NORTHERN DISTRICT

Dr. C. C. Nash, Dallas,
Councilor.

COLLIN COUNTY MEDICAL SOCIETY

Burt, J. D. (Hon.), Farmersville.
Burton, E. L., McKinney.
Collins, J. S., Celina.
Corry, A. C. (Pres.), Farmersville.
Hooper, John (Mil.), McKinney.
Kitchens, Walter L., Uvalde.
Mantooth, John T., Melissa.
Mitchell, Oliver T., Plano.
Morrow, R. E., McKinney (R. F. D. 2).
Saye, W. L., Frisco.
Shumway, Chas. M., McKinney.
Truett, Harvey (Mil.), McKinney.
Walker, R. N., Celina.
Wolford, H. F., McKinney.
Wright, Will C., Farmersville.
Wysong, C. E. (Mil.), McKinney.
Wysong, H. Dudley (Sec'y), McKinney.
Wysong, W. S., McKinney.
Wyson, W. S., Jr., McKinney.

COOKE COUNTY MEDICAL SOCIETY

Atchison, Jas. W., Gainesville.
Mead, Ernest C., Gainesville.
Myrick, Thos. S., Muenster.
*Terry, Houston H. (Sec'y), Gainesville.
Thayer, Claud B., Gainesville.
Thomas Ira L., Gainesville.
Yarbrough, Silas M. (Pres.), Gainesville.

DALLAS COUNTY MEDICAL SOCIETY

Abramson, John H. (Mil.), Dallas.
Addison, R. P., Dallas.
Alessandra, S. A. (Mil.), Dallas.
*Alexander, Jo C., Dallas.
*Alexander, Lee J., Dallas.
Alfieri, Anthony L. (Mil.), Dallas.
Allday, Louie E. (Mil.), Dallas.
*Allen, Ruth I., Dallas.
Allen, Burton W., Dallas.
Allison, Wilfred J. (Mil.), Dallas.
Altman, Wm. A., Dallas.
Anderson, L. R., Dallas.
Andrews, B. C., Dallas.
Andrews, Warren, Dallas.
Archer, Thos. J., Jr., Grand Prairie.
Arnold, Geo. K. (Mil.), Dallas.
Arnold, Lawrence E. (Mil.), Dallas.
Aronoff, B. L., Boston, Mass.
Aronson, H. S., Dallas.
*Ashby, John E., Dallas.
Ashworth, Chas. T., Dallas.
Aten, Eugene L. (Mil.), Dallas.
Atkinson, Geo. N., Jr. (Mil.), Dallas.
Ault, C. A., Mil.), Dallas
Austin, D. J. (Mil.), Dallas.
Austin, Florence W., Dallas.
Austin, Frank H., Dallas.
Bagwell, John W. (Mil.), Dallas.
Baird, Sidney S., Dallas.
Baker, Bryant O., Dallas.
Baker, John O., Dallas.
*Baldwin, Alvin Jr., Dallas.
Barnes, Dorsey K., Dallas.
Barnett, Donald J., Dallas.
Barr, Wm. Tom, Dallas.
Barta, C. K. (Mil.), Dallas.
Barton, Robt. M., Dallas.
Bass, James W. (Mil.), Dallas.
Beall, John R., Dallas.
Beaver, N. B. (Mil.), Dallas.
Beckering, Henry H., Dallas.
Beddow, L. D. (Mil.), Dallas.
*Bell, Marvin D., Dallas.
Bellamy, C. H, Dallas.
Berger, B. J., Dallas.
Berk, Ira J., Dallas.
Berk, Wm. R., Dallas.
*Black, J. H., Dallas.
Bland, Leonard F., Dallas.
Blend, Max H. (Mil.), Dallas.
Block, Cecil C., Dallas.
Block, Harold M. (Mil.), Dallas.
Board, J. Paul, Dallas.
Boone, M. A., Dallas.
Bounds, Murphy (Mil.), Dallas.
Bourland, John B., Dallas.
Bourland, J. W., Dallas.
Bourland, J. W., Jr., Dallas.
Bowyer, Mack F.(Mil.), Dallas.
Boyer, L. A., Dallas.
Bradfield, Jno. L., Dallas.
*Bradford, Wm. H., Dallas.
Brandau, Wm. W., Dallas.
Brandt, Otto, Dallas.
Brannin, Dan., Dallas.
Brannin, E. B., Dallas.
Brau, John G. (Mil.), Dallas.
Breihan, E. W., Dallas.
Brereton, G. E., Dallas.
Brooks, Ernest J., Dallas.
*Brooksaler, Fred S., Dallas.
Brown, C. Frank, Dallas.
Brown, Olen E., Dallas.
Brown, S. Roland (Mil.), Dallas.
Browne, Wm. C., Dallas.
Bruton, Emmett B., Dallas.
Bryan, Eugene K., Oakland, Calif.
Buchanan, J. F., Dallas.
Buckner, Kathryn, Dallas.
Buford, Ben R., Dallas.
Bumpass, Stewart R., Dallas.
Burgess, Geo. A. (Mil.), Dallas.
Bush, Douglas M. (Mil.), Dallas.
Bush, W. H., (Mil.), Dallas.
Bussey, C. D. (Mil.), Dallas.
Butte, Felix L. (Mil.), Dallas.
Byron, Emmett T., Dallas.
Bywaters, T. W., Dallas.
*Caillet, O. Rene, Dallas.
Cairns, A. B. (Mil.), Dallas.
*Caldwell, Geo. T., Dallas.
Caldwell, Janet A., Dallas.
Calhoun, Nina Fay, Dallas.
Calhoun, Thos. J., Dallas.
Cantrell, Roy H. (Mil.), Dallas.
Carlisle, Chas. P., Dallas.
*Carlisle, Geo. L., Dallas.
*Carlson, Glenn D. (Mil.), Dallas.
*Carman, H. Frank, Dallas.
*Carpenter, Robt. G., Dallas.
Carrell, Brandon W., Dallas.
Carrell, W. B. (Dead), Dallas.
Carroll, Benjamin H., Dallas.
Carswell, W. E. (Mil.), Dallas.
Carter, C. B. (Mil.), Dallas.
Carter, Chas F., Dallas.
*Carter, David W., Jr. (Pres.), Dallas.
Carter, Earl L., Dallas.

*Cary, Edward H., Dallas.
Chapman, John S., Dallas.
Cinnamon, Alfred M., Dallas.
Clark, Arthur L. (Mil.), Dallas.
Clark, Harold G., Dallas.
*Cochran, H. Walton, Dallas.
Coggeshall, H. C. (Mil.), Dallas.
Collier, Gates (Mil.), Dallas.
Cook, Thos. E., Dallas.
Cookerly, Van (Mil.), Dallas.
Cooper, Covert B., Grand Prairie.
Copeland, F. R., Dallas.
Copeland, H. V., Grand Priarie.
Cowart, Robt. W., Dallas.
Cox, Eli R., Dallas.
Cox, Kelly, Dallas.
Crow, W. E., Dallas.
Crutcher, Howard K., Dallas.
Cupp, Charles D., Grand Prairie.
Daniel, Ruby K., Dallas.
Darrough, L. E. (Mil.), Dallas.
Dathe, Richard A. (Mil.), Dallas.
*Davidson, G. A., Dallas.
Davis, David B., Dallas.
Davis, J. Spencer, Dallas.
Davis, Leo G. (Mil.), Dallas.
Dawson, J. L., Dallas.
Deatherage, W. R., (Mil.), Dallas.
Decherd, H. B., Dallas.
deHaro, Anthony J. (Mil.), Dallas.
D'Errico, Albert P., Dallas.
Denton, Guy T., Sr., Dallas.
Denton, Guy T., Jr. (Mil.), Dallas.
Devereaux, W. P. (Mil.), Dallas.
*Donald, Homer, Dallas.
Doolittle, H. M., Dallas.
Dorman, J. H., Dallas.
*Dowis, J. M., Dallas.
Downs, Jas. T., Jr., Dallas.
Dozier, F. S. (Mil.), Dallas.
Driver, John B., Dallas.
Driver Sim, Dallas.
Duckett, J. W., Dallas.
Duncan, Chas. N. (Mil.), Dallas.
Duncan, Horace E. (Mil.), Dallas.
Dunlap, Elbert, Dallas.
Dunlap, Jas. H. (Mil.), Dallas.
*Dunlap, John E., Dallas.
Dunstan, E. M. (Mil.), Dallas.
*DuPuy, Howard B., Dallas.
Edwards, Wm. L., Dallas.
Embree, John W., Dallas.
Estes, Ivan A., Dallas.
Evans, W. G., Dallas.
*Fashena, Gladys J., Dallas.
*Fetzer, Lewis W., Dallas.
Finnegan, Chas. R., Dallas.
Fisher, Rowan E. (Mil.), Dallas.
Fisher, Thos. B., Dallas.
*Folsom, A. I., Dallas.
Fowler, W. W. (Sec'y), Dallas.
Fox, Everett C. (Mil.), Dallas.
Franklin, Floyd S., Dallas.
Franklow, C. D., Dallas.
Freedman, S. M., Dallas.
French, Cecil M. (Mil.), Dallas.
Fry, Elma May, Dallas.
Fry, Murdock D., Dallas.
Fuller, Wm. W., Dallas.
Fuqua, Carl F. (In.), Dallas.
Galt, Sidney (Mil.), Dallas.
Garrett, H. Grady, Dallas.
Gendel, Joseph (Mil.), Dallas.
George, Ella Mary, Dallas.
Gessner, F. E., Dallas.
Gibbons, Olin W., Dallas.
Gilbert, Allen C. (Mil.), Dallas.
Gilbert, Taylor C., Dallas.
Giles, Robt. B., Dallas.
Gill, Atticus J., Dallas.
Gill, Horace E. (Mil.), Dallas.
Girard, Percy M. (Mil.), Dallas.
Goff, Gomer F., Dallas.
*Goforth, John L, Dallas.
*Goggans, Roy F., Dallas.
Gold, H. Raphael, New York, N. Y.
*Goode, John V., Dallas.
Gordon, E. S., Dallas.
Gottlich, Arthur P., Dallas.
Grafton, E. G., Jr. (Mil.), Dallas.
Green, Falvey R., Dallas.
Green, Tim, Dallas.
Griffin, Ben H., Dallas.
Grow, Max H. (Mil.), Dallas.
*Hacker, Guy L., Dallas.
Hackney, U. P., Dallas.
Halbounty, M. R. (Mil.), Dallas.
Hale, Martha Helen, Dallas.
Haley, Wm. E. Dallas.
*Hampton, J. A., Dallas.
Harber, Harry P., Dallas.
Hardin, Abell D. (Dead), Dallas.
Hardin, Dexter H., Dallas.
Hardin, Hal W. (Mil.), Dallas.
*Harkins, James E. (In.), Dallas.
Harrington, Francis T., Dallas.
Harrington, S. F., Dallas.
*Harris, Alfred W., Dallas.
Harris, N. J. (Mil.), Dallas.
Harrison, Ben F., Jr., Dallas.
Harrison, Gaston G., Dallas.
Hart, G. A. (Mil.), Dallas.
Hartman, James M., Garland.
Harvill, T. Haynes (Mil.), Dallas.
Hawkins, Hubert F., Dallas.
Hawley, J. Leeper, Dallas.
Hellams, Alfred A. (Mil.), Dallas.
Henderson, W. T., Jr. (Mil.), Dallas.
Hennen, J. C., Garland.
Henry, D. J. (Mil.), Dallas.
Herndon, James H. (Mil.), Dallas.
*Hill, Joseph M., Dallas.
Hill, S. M., Dallas.
Hilliard, Geo. M., Jr. (Mil.), Dallas.
*Hodges, J. Shirley, Dallas.
Hodges, Leon, Dallas.
Hoefer, Carl A., Dallas.
Holt, J. O. S., Jr. (Mil.), Dallas.
Holtz, Harvey E., Dallas.
*Hopkins, May Agnes, Dallas.
Horn, Fred W., Grand Prairie.
Howard, Geo. W., Dallas.
Howell, Jas. B., Dallas.
Hudgins, B. E., Hutchins.
Hudson, W. Lee, Dallas.
Hurt, L. B. (Mil.), Dallas.
Irvine, Eugene J., Dallas.
Jablow, Harvey B., Dallas.
Jackson, Mary Ruth, Dallas.
Jackson, Reuben W., Dallas.
Jackson, Rice R., Dallas.
Jacobson, Harry B., Dallas.
Jamison, Cyrus W., Dallas.
Jenkins, John L., Dallas.
*Jenkins, Speight, Dallas.
Jones, Edwin L., Dallas.
*Jones, Geo. M., Dallas.
Jones, J. Guy, Dallas.
*Jones, W. D., Dallas.
Kahn, S. H., Dallas.
Kaplan, H. L. (In.), Dallas.
Katz, S. M. (Mil.), Dallas.
Keller, L. L., Dallas.
Kemp, Hardy A. (Mil.), Dallas.
*Kerr, Jack G., Dallas.
Kidd, Frank H., Jr. (Mil.), Dallas.
Kilgore, Donald G., Dallas.
Kindley, Geo. C., Dallas.
King, Karl B. (Mil.), Dallas.
Kinsell, Benjamin, Dallas.
Kirksey, T. M., Dallas.
Klein, Samuel S., Clifton, Ariz.
Knickerbocker, B. A. (Mil.), Dallas.
*Knowles, W. Mood, Dallas.
Knox, Robt. A., Dallas.
Kolaczkowski, C. G. H., Dallas.
Kreymer, Geo. C., Dallas.
LaDue, Chas. N. (Mil.), Dallas.
Lancaster, Mary Agnes, Dallas.
Landesman, Jos. D., Corpus Christi.
Lanius, John W. (Mil.), Dallas.
Launey, Geo. V., Grand Prairie.
Laugenour, Dudley P., Dallas.
Lawson, Geo. W., Grand Prairie.
Lee, Jack B. (Mil.), Dallas.
Lee, Ridings E. (Mil.), Dallas.
*Leeper, Edward P. (Mil.), Dallas.
Levin, Paul M., Dallas.
Levy, Harry R., Dallas.
Light, Flominda, Dallas.
Lindsay, G. A., Dallas.
Littell, Geo. S., (Mil.), Dallas.
Lively, Wm. M., Jr. (Mil.), Dallas.
LoBello, Leon C. (Mil.), Dallas.
Loftis, Earl L. (Mil.), Dallas.
Long, Gerald DeWitt, Dallas.
Long, Troy F., Dallas.
Loomis, Edgar W., Dallas.
Looney, W. W., Dallas.
Love, Thos. S., Dallas.
Lubben, John F. (Mil.), Dallas.
*Luecke, P. E., Dallas.
*Lyday, Victor I. (Mil.), Dallas.
Lyon, Edward G., Dallas.
Maddox, W. Gordon, Dallas.
Maffett, Minnie L., Dallas.
Mahon, G. D., Dallas.
*Marchman, Oscar M., Dallas.
Marshall, Jas. H., Dallas.
Martin, Chas. L., Dallas.
Martin, Jas. M., Dallas.
Martin, W. E., Dallas.
Martinak, Richard E. (Mil.), Dallas.
Mason, Porter K. (Mil.), Dallas.
Massey, Warren E., Dallas.
Mathews, Paul W., Dallas.
Maupin, W. A., Rowlett.
Maxfield, Geo. S. (Mil.), Dallas.
Maxfield, John R., Sr., Dallas.
*Maxfield, John R., Jr., Dallas.
McBride, Dayton C., Dallas.
*McBride, R. B., Dallas.
McCallum, Chas., Mesquite.
McClung, Hugh L. (Mil.), Dallas.
McCracken, J. H., Jr., Dallas.
McCullough, Malcolm K., Dallas.
McDonald, W. D., Dallas.
McFarland, Gordon B., Dallas.
McGuire, Jos. H., Dallas.
*McIver, Julius, Dallas.
McLaurin, Hugh L. (Mil.), Dallas.
McLaurin, John G., Dallas.
McLeod, James N., Dallas.
*McNeill, Arch J., Dallas.
McPherson, V. L., Dallas.
Mendel, E. B., Dallas.
Mendenhall, Elliott, Dallas.
Mengert, Wm. F., Dallas.
Metz, M. Hill, Dallas.
Mikulencak, Ben A. (Mil.), Dallas.
Miller, Tate (Mil.), Dallas.
Milliken, Sam E., Dallas.
Mills, James T. (Mil.), Dallas.
Minnett, Jno. S. (Mil.), Dallas.
Montgomery, Henry G. (In.), Dallas.
Moody, Joe Vern, Dallas.
Mooney, Ken (Mil.), Dallas.
Moore, Halcuit (Mil.), Dallas.
*Moore, H. Leslie, Dallas.
*Moore, Ramsay H., Dallas.
*Moore, Robt. L. (Mil.), Dallas.
*Morris, A. Truett (Mil.), Dallas.
Morris, Julian H., Dallas.
Muirhead, E. E. (Mil.), Oallas.
Muirhead, Sam J., Sheridan, Wyo.
Murchison, Dan R. (Dead), Dallas.
Murphy, John B. (Mil.), Dallas.
Myers, David V., Dallas.
*Nash, C. C., Dallas.
Nelson, Harry E., Dallas.
*Nelson, L. A., Dallas.
*Nesbit, Harold T., Dallas.
*Nesbitt, Irene T., Dallas.
Neuman, Albert, Dallas.
*Newsom, Asa A., Dallas.
Newton, Cosette F., Dallas.
*Newton, Frank H., Dallas.
Nichols, Ace E., Dallas.
Nichols, Carl, Gladewater.
Nitsche, Ernest W., Dallas.
Nordenbrock, Gregory J., Dallas.
Norman, Floyd A. (Mil.), Dallas.
Nowakovsky, Sophie T., Dallas.
O'Brien, H. A., Dallas.
O'Brien, J. D., Dallas.
O'Neal, Jesse Paul, Garland.
Ormsby, F. E., Dallas.
*Pace, John M., Dallas.
Park, Barton E. (Mil.), Dallas.
Parks, Harold D. (Mil.), Dallas.
Passamonte, Jane A. (Mil.), Dallas.
Paternostro, Chas. J., Dallas.
Patterson, Casey E. (Mil.), Dallas.
*Patterson, Cecil O., Dallas.
Payne, V. M., Jr. (Mil.), Dallas.
Pence, Ludlow M. (Mil.), Dallas.
Perkins, Jack F., Dallas.
Peyton, John B. (Mil.), Dallas.
*Pickard, J. M., Dallas.
Pickett, Taylor T., Dallas.
Pickett, Walter F. (Mil.), Dallas.
Porter, Geo. L. (Mil.), Dallas.
Potts, J. M., Dallas.
*Potts, W. H., Jr., Dallas.
Powell, Homer, Dallas.
Price, Harry S., Dallas.
*Provence, Sally Ann, Dallas.
*Quinn, Lester H., Dallas.
Ramsdell, Robt. L., Austin.
*Rattan, Paul M., Dallas
Ray, James H., Dallas.
Reagan, A. Morris, Dallas.
Reaves, L. M. (Mil.), Dallas.
Reddick, Walter G., (Mil.), Dallas.
Reuss, G. T., Amarillo.
Richter, Paul A., Dallas.
Riddle, Penn, Dallas.
Riddler, G. A., Dallas.
Riley, Joseph G., Dallas.
Rippy, Edwin L. (Mil.), Dallas.
Roberts, Tom Ray (In.), Dallas.
Robertson, Geo. W. (Mil.), Dallas.

*Robertson, James E., Dallas.
Robinson, Wayne T., Dallas.
Rogers, Fred T., Dallas.
Rogers, Paul A., Dallas.
Rosenthal, R. S., Dallas.
Ross, Edward S. (Mil.), Dallas.
Rosser, C. M. (Hon.), Dallas.
Rosser, Curtice, Dallas.
*Rouse, Milford O., Dallas.
Rowe, J. F., Dallas.
Rucker, John C. (Mil.), Dallas.
*Rumpf, Wm. H., Dallas.
Rushing, E. O., Dallas.
Sacher, Clarence B., Dallas.
Salmond, Paul H., Dallas.
Sams, Lewis C., Dallas.
Sanders, Oscar P., Dallas.
Scales, John G. (Mil.), Dallas.
Scanland, Viola P., Dallas.
Schaefers, Jos. G., Jr., Dallas.
Schenewerk, Geo. A. (Mil.), Dallas.
Schmaltz, W. F., Waco.
*Schoch, Arthur G., Dallas.
*Schoolfield, Ben L., Dallas.
Schreiber, Gus, Jr., Dallas.
Schuessler, W. W. (Mil.), Dallas.
Schuett, A. J., Dallas.
*Schwenkenberg, A. J., Dallas.
Sebastian, F. J. (Mil.), Dallas.
*Seeds, Asa E., Dallas.
Seely, Marcus S., Dallas.
Selecman, Frank A., Dallas.
*Sellers, Lyle M., Dallas.
*Shane, J. Howard, Dallas.
*Shannon, Hall, Dallas.
Shaw, Robt. R. (Mil.), Dallas.
Shea, Genevieve C., Dallas.
Sheffield, Lloyd B., Dallas.
Shelburne, S. A. (Mil.), Dallas.
Sheldon, Lawrence B., Dallas.
Shelmire, J. Bedford, Dallas
Shelton, A. M., Dallas.
Shepherd, Walter F., Dallas.
Shoecraft, Warren A. (In.), Dallas.
Short, Robt. F. (Mil.), Dallas.
Shortal, W. W., Dallas.
*Shuey, Chas. B., Dallas.
Sigel, Zundel, Dallas.
*Singleton, J. D., Dallas.
Skrivanek, Ervin J. (In.), Dallas.
Slaughter, Donald H., Dallas.
Small, Andrew B. (Mil.), Dallas.
Smith, Jack V., Dallas.
Smith, Lois Weir (Mil.), Dallas.
Smith, Ralph C., (Mil.), Dallas.
Smith, Richard M., Dallas.
Smith, Thos. E. (Mil.), Dallas.
Smith, Vinny L., Dallas.
Smith, W. Edgar, Dallas.
Sorrells, C. C., Dallas.
Sowers, Harry B., Dallas.
*Spangler, Davis, Dallas.
Spence, Harry M. (Mil.), Dallas.
Stanley, Edward S. (Mil.), Dallas.
Stein, Justin J. (Mil.), Dallas.
Stell, Cecil I. (Mil.), Dallas.
Stephenson, Jas. H. (Mil.), Dallas.
Stephenson, W. O., Dallas.
Stiles, J. C., Dallas.
Stiles, Wendel A. (Mil.), Dallas.
Still, Oscar W. (Mil.), Dallas.
Stokes, Elmer M., Dallas.
Stone, M. P., Dallas.
Strother, E. B., Dallas.
Strother, W. K., Dallas.
Stuart, Samuel E. (Mil.), Dallas.
Sullivan, Rufus A., Dallas.
Super, A. R., Dallas.
Sweeney, J. Shirley (Mil.), Dallas.
Sykes, Walter M., Dallas.
Sypert, J. R., Dallas.
Taber, Martin E., Dallas.
Talkington, P. C. (Mil.), Dallas.
Taylor, Harold Earl, Dallas.
Terrell, Alex W., Jr., Dallas.
Terrill, James J., Dallas.
Thomas, W. Maxwell (Mil.), Dallas.
*Thomas, Paul Jasper, Dallas.
Thomasson, Arthur R., Dallas.
Thomasson, Arthur R., Jr., Dallas.
Thompson, B. M., Irving.
Thompson, L. S., Dallas.
Thornton, C. W., Dallas.
Tigertt, Wm. D. (Mil.), Dallas.
Tittle, Guy A., Dallas.
Tittle, Lloyd C., Dallas.
Tomkies, James S., Dallas.
Touchstone, J. L., Dallas.
Truett, Chas. B. (Mil.), Dallas.
Trumbull, R. A. (Mil.), Dallas.
Tsukahara, Wm., Dallas.
Tubb, C. L., Dallas.
*Underwood, Geo. M., Dallas.
Usry, R. S., Dallas.
Van Duzen, Rex E., Dallas.
Vassallo, Alfred L. (In.), Dallas.
Waddell, Otto J., Jr., Dallas.
Walborn, K. B. (Mil.), Dallas.
*Waldman, Morris F., Dallas.
Walker, Price M., Dallas.
Wallace, Gordon K., Dallas.
Ward, Ernest, Dallas.
Warren, Chas. H., Dallas.
Wassermann, Eugene, Dallas.
Watkins, A. B., Seagoville.
Watkins, Margaret, Dallas.
Watkins, Dale V. (In.), Dallas.
Watson, Claud E., Dallas.
Weaver, Samuel D., Dallas.
Webb, Robt. W. (Mil.), Dallas.
Webb, Sam, Jr. (Hon.), Dallas.
Welsh, Mark L. (In.), Little Rock, Ark.
Wells, Jas T., Dallas.
West, Ann, Dallas.
White, Byrd E., Jr. (Mil.), Dallas.
White, C. V., Dallas.
*White, Edward, Dallas.
White, Wm. T. (Dead), Dallas.
Whitis, Rufus, Dallas.
Whitten, Merritt B., Dallas.
Wilkinson, W. B., Dallas.
Williams, Edw. C. (Mil.), Dallas.
Williams, Elizabeth C., Dallas.
Williams, G. Raworth, Dallas.
Williams, Paul C., Dallas.
Williams, Thos. S., Dallas.
Willis R. S. (Mil.), Dallas.
Wilson, James E., Lancaster.
Winans, H. M. (Mil.), Dallas.
Winborn, Claude D. (Mil.), Dallas.
Winford, T. E., Dallas.
Winn, Robt. E. (Mil.), Dallas.
Winn, Watt W., Dallas.
Witt, Guy F., Dallas.
Wolfe, Joseph (Mil.), Dallas.
Wolff, Paul M., Dallas.
Woodard, Gay T., Grand Prairie.
*Woodard, Thad L., Dallas.
*Woods, Ozro T. (Mil.), Dallas.
Worley, John R., Dallas.
Wright, Carleton C. (Mil.), Dallas.
Wright, R. E., Dallas.
*Wyvell, Dorothy B., Dallas.
Yancey, R. S., Dallas.
Yarbrough, Doyce C., Jr., Dallas.
*Young, Jno. G., Dallas.
Zier, James Robert, Baird.
Zuelzer, Wilhelm (Mil.), Dallas.

DELTA COUNTY MEDICAL SOCIETY

Blair, Samuel F., Cooper.
Janes, Olen G., Cooper.
Janes, Olen Y., Cooper.
Janes, Osler Y., Cooper.
Lowry, David O. (Pres.), Cooper.
Taylor, Chas. C. (Sec'y), Cooper.
Westerman, Daniel B., Cooper.
Wheat, E. Baxter, Daingerfield.

DENTON COUNTY MEDICAL SOCIETY

Allen, Jos. H., Justin.
Davis, Bert E. (Mil.), Denton.
Evans, Rebecca M., Denton.
Ferguson, Sarah, Denton.
Fiegel, Walter L. (Mil.), Lewisville.
Harris, Worth W. (Mil.), Pilot Point.
Hayes, Lindley O. (Mil.), Denton.
Hinkle, Geo. W. (Pres.), Denton.
Holland, Martin L., Denton.
Hutcheson, Melvin L., Denton.
Kimbrough, Wallace C., Denton.
Lipscomb, Priestly, Denton.
Magness, Wm. N. (Mil.), Denton.
Pierce, Willa Louise, Aubrey.
Strahan, Eva E., Denton.
Woodward, Jack (Sec'y), Denton.
Wyss, Albert E., Denton.

ELLIS COUNTY MEDICAL SOCIETY

Carlisle, F. H., Italy.
Chapman, John M., Ennis.
Clark, Jos. L., Ennis.
*Curby, John H., Maypearl.
Donnell, Herbert, Waxahachie.
Dykes, A. O., Italy.
Estes, Ted G., Waxahachie.
*Gough, E. F. (Sec'y), Waxahachie.
Grand, Wm. A., Bardwell.
Hastings, Miles E., Waxahachie.
Jackson, Walter B., Waxahachie.
Jenkins, F. H., Waxahaachie.
Jenkins, J. B., Waxahachie.
Jones, Jos. E., Waxahachie.
Killian, J. E., Milford.
Ledbetter, W. C., Ennis (R. F. D.)
Story, Fred L., Ennis.
Tenery, W. C., Waxahachie.
Thomas, A. L. (Pres.), Ennis.
*Watson, S. H., Waxahachie.

FANNIN COUNTY MEDICAL SOCIETY

Biggers, Lawton C., Bonham.
Cappleman, James J., Honey Grove.
Donaldson, James M. (Sec'y), Bonham.
Donnelly, Allen D., Jackson, Miss.
Fry, Samuel D., Ladonia.
Hunter, Buell Ray, Kilgore.
*Kennedy, Alvis B. (Pres.), Bonham.
Lanius, John A., Bonham.
Leeman, Henry H., Windom.
Magness, James C., Honey Grove.
Norman, James E., Trenton.
Saunders, David J., Bonham.
Savage, Harvey B., Honey Grove.
Scates, Henry R., Bonham.
Sellers, Sidney P., Honey Grove.
Ward, William Y., Ivanhoe.

GRAYSON COUNTY MEDICAL SOCIETY

Bates, I. C., Sherman.
Blassingame, W. Doak, Denison.
Brown, H. L., Sherman.
Carraway, J. H., Sherman.
Carter, Chas. S., Bells.
Carter, Wilbur, Sherman.
Collins, J. A., Gordonville.
Enloe, David C., Sherman.
Etter, Edward F. (Mil.), Sherman.
Fowler, F. F., Denison.
*Freeman, Don W., Denison.
Freeman, William, Denison.
*Gleckler, Arthur (Pres.), Sherman.
Greer, Guy W., Whitesboro.
Hailey, E. L., Denison.
Henschen, G. E. (Hon.), Sherman.
Jamison, David K., Denison.
Johnson, Clyde P., Whitewright.
*Klapproth, Herman, Sherman.
*Lee, W. A., Denison.
Levin, Samuel O., Denison.
May, Ross R., Whitewright.
Mayes, J. A., Denison.
McElhannon, A. M., Sherman.
Meek, Grover C., Whitesboro.
Moore, S. D. (Hon.), Van Alstyne.
Norman, Lois L. (Sec'y), Sherman.
Pierce, Paul L., Denison.
*Ridings, A. L., Sherman.
Russell, Buford A., Sherman.
Shelley, Jos. L., Howe.
Sneed, Archie G., Denison.
Sporer, Frank M., Van Alstyne.
Stephens, Geo. K., Jr. (Mil.), Whitewright.
Stout, Henry I., Sherman.
Strother, C. D., Sherman.
Tuck, Vernon L. (Mil.), Sherman.
*Woodward, Max R., Sherman.

HOPKINS-FRANKLIN COUNTIES MEDICAL SOCIETY

Chandler, Henry E., Mt. Vernon.
Cozad, Don H., Amarillo.
Fleming, Jas. M., Mt. Vernon.
Fuquay, Zack C., Mt. Vernon.
*Hanna, Wm. Ray (Pres.), Sulphur Springs.
Harrington, C. E., Dallas.
Long, W. Frank, Sulphur Springs.
Longino, S. Byrd, Sulphur Springs.
McConnell, T. H., Sulphur Springs.
Saunders, W. B., Sulphur Springs.
Stevens, Thos. H. (Mil.), Sulphur Springs.
Stirling, Earl (Sec'y), Sulphur Springs.
Taylor, Fred O., Winfield.
Worsham, Archer B., Sulphur Springs.

HUNT-ROCKWALL-RAINS COUNTIES MEDICAL SOCIETY

Allen, Clarence G., Commerce.
Arnold, Benjamin F., Greenville.
Becton, Edwin P., Greenville.
*Becton, Joe, Greenville.
Bradford, Harry M., Greenville.
Cheatham, J. C., Wolfe City.
Cooper, J. S., Greenville.
Crim, E. T. (Mil.), Greenville.
Dickens, W. Mason (Mil.), Greenville.

Fain, G. Burton, Lone Oak.
Goode, Emmette P. (Sec'y), Greenville.
Hayes, Elmer R. (Mil.), Greenville.
*Jenks, Ralph W., Greenville.
*Kennedy, Charles T., Greenville.
King, H. E., Greenville.
Maier, Henry W., Greenville.
Morrow, Wiley C. (Pres.), Greenville.
Philips, W. P., Greenville.
*Reeves, W. B., Greenville.
Rogers, Harriett, Commerce.
Smith, J. R., (Mil.), Wolfe City.
Strickland, Thomas C., Greenville.
Swindell, John W., Greenville.
Trentham, J. C., Greenville.
Trimble, Orman H. (Mil.), Greenville.
*Waller, L. T., Commerce.
*Ward, James W., Greenville.
Whitten, Samuel D., Greenville.

KAUFMAN COUNTY MEDICAL SOCIETY

Alexander, Gough H., Terrell.
Alexander, Wm. F., Terrell.
Belote, James W. H., Elmo (via Wills Point).
Friddell, Delmar T., Terrell.
Hall, Edward I., Kaufman.
Holton, Robert W., Terrell.
Howell, Theodore S., Baytown.
*Hudgins, Dave H., Forney.
Jennings, Albert Y., Mabank.
Johnston, Lawrence W. (Sec'y), Terrell.
Lane, Edward D., Terrell.
Livingston, E. N. (Mil.), Terrell.
Lyon, Floy E., Terrell.
Pollard, William J. (Hon.), Wichita Falls.
Poplin, Richard W., Terrell.
Powell, Geo. F., Terrell.
Scarborough, Jas. W., Terrell.
Shands, Percy C., Mesquite.
Sloan, Roy C. (Pres.) Terrell.
*Taylor, Harvey S., Kaufman.
Taylor, Homer A., Kemp.
Thomas, William M., Terrell.

LAMAR COUNTY MEDICAL SOCIETY

Armstrong, James E., Paris.
Armstrong, John T. (Mil.), Paris.
Barker, Carl D., Paris.
*Buford, Talma W., Minter (via Pattonville).
Creed, James R., Roxton.
Fitzpatrick, Wm. W., Paris.
Gilmore, Clarence E. (Pres.), Paris.
Goolsby, Elbert, Paris.
Grant, Stephen H., Deport.
Hammond, David S., Paris.
Hooks, James M., Paris.
Hunt, Thomas E. (Sec'y), Paris.
Hunt, Thomas E., Jr. (In.), New Orleans, La.
Jennings, James L., Roxton.
Johnson, Malcolm L., (Mil.), Paris.
Kerbow, Dock F. (Mil.), Paris.
Lewis, Robt. L., Paris.
Lewis, Robt. L., Jr. (Mil.), Paris.
McCuistion, Lorenzo P., Paris.
McCuistion, Wm. W., Paris.
McDougal, L. L. (Mil.), Paris.
O'Neill, Owen R., Paris.
Robison, Oscar W., Paris.
Stark, Ernest H., Paris.
Stephens, John A. (Mil.), Paris.
*Stephens, Luke B., Paris.
Townsend, C. M. (Mil.), Paris.
Walker, Marcellus A., Paris.
Walker, M. A., Jr. (Mil.), Paris.
White, Hal H., Paris.

VAN ZANDT COUNTY MEDICAL SOCIETY

Addy, E. E., Canton.
Andrews, Noah W., Terrell.
*Baker, Horace A., Wills Point.
Brandon, B. B. (Sec'y), Edgewood.
Cozby, Raymond W., Grand Saline.
Cozby, V. B., Grand Saline.
Fry, Harry T. (Pres.). Wills Point.
Garland, W. L., Grand Saline.
Sanders, D. Leon, Wills Point.

WOOD COUNTY MEDICAL SOCIETY

Black, Wm. T., Quitman.
Buchanan, A. P., Mineola.
Burrus, R. E., Winnsboro.
Coleman, Robt. H. (Mil.), Mineola.
Farrington, R. A., Alba.
Green, Forest J., Mineola.
Mathis, James R. (Mil.), Mineola.
*McDaniel, A. A. (Pres.), Mineola.
Peterson, Thos. H., Mineola.
Reed, Thos. B., Mineola.
Robbins, Virgil E. (Sec'y), Quitman.
Vickers, Claud T., Winnsboro.
Wheeler, Frank B. (Mil.), Winnsboro.

FIFTEENTH OR NORTHEASTERN DISTRICT

Dr. C. A. Smith, Texarkana, Councilor.

BOWIE COUNTY MEDICAL SOCIETY

Andrews, John R., Alcatraz, Calif.
Barclay, Will B., Maud.
Baskett, Roy F., Texarkana.
Beck, Edwin L., Texarkana.
Collom, S. A., Jr. (Mil.), Texarkana.
Cross, Ralph C., Texarkana.
*Frank, Charles H., Texarkana.
Fuller, Theron E., Texarkana.
*Good, Louis P., Texarkana.
Hibbitts, William, Texarkana.
Hunt, Preston, Texarkana.
Imes, Elvin D. (Mil.), Texarkana.
Jones, John W. (Mil.), Texarkana.
*Kitchens, Chester E., Texarkana.
Mann, Albert H., Texarkana.
McGee, Ellis B., New Boston.
McGee, J. R., New Boston.
*McKay, Edward D. (Mil.), Texarkana.
*Parsons, Geo. W., Texarkana.
Pickett, Reavis W., Texarkana.
Priest, Perry D., Texarkana.
Rives, John H., Texarkana.
*Roberts, Anon W. (Pres.), Texarkana.
Robison, James T., Texarkana.
Scroggie, Val D., Texarkana.
*Smith, Chas. Adna (Sec'y), Texarkana.
Spinka, Frances P., Texarkana.
Stuart, Chas. C., Texarkana.
Tyson, Joe E., Texarkana.
*White, Jasper N., Texarkana.
Withrow, Elizabeth, Texarkana.

CAMP COUNTY MEDICAL SOCIETY

Bates, J. K. (Sec'y), Pittsburg.
Johnson, R. L., Pittsburg.
Lacy, R. Y. (Pres.), Pittsburg.
Mitchell, James H., Pittsburg.
Reitz, P. A. (Mil.), Pittsburg.

CASS-MARION COUNTIES MEDICAL SOCIETY

Allen, James I., Bloomburg.
Brooks, Jessie M. (Mil.), Atlanta.
Davis, Chas. E., Linden.
Grumbles, Ernest W., Atlanta.
Hartzo, James D., McLeod.
Hawley, S. Dezell (Dead), Atlanta.
Jenkins, Homer L. D. (Sec'y), Hughes Springs.
Jenkins, M. T. (Mil.), Hughes Springs.
*Nichols, Joe D., Atlanta.
Roach, Felton R., Queen City.
Shaddix, A. C., Bivins.
Starnes, Adolphus E. (Pres.), Hughes Springs.
Taylor, Orval R., Linden.
Terry, William S., Jefferson.
Wilson, Stephen W. (Mil.), Linden.
Woods, Andrew J., Jefferson.

GREGG COUNTY MEDICAL SOCIETY

Adam, Chas. C., Longview.
Adams, Jos. E., Kilgore.
Allums, Loraine L., Kilgore.
Andres, Ben., Longview.
Awalt, Elmer W. (Sec'y), Longview.
Barcus, James R., Gladewater.
Bussey, J. E. (Mil.), Longview.
Colvin, Paul V. (Mil.), Longview.
Cook, Hardy, Longview.
Downs, Seth R. (Mil.), Kilgore.
Farrar, W. P. (Mil.), Longview.
Fleming, J. W., Gladewater.
Hancock, A. R., Gladewater.
Harper, Jack C. (Mil.), Longview.
*Hurst, V. R. (Pres.), Longview.
Jones, E. L., Longview.
Leake, Bain (Mil.), Gladewater.
Marchman, O. M., Jr. (Mil.), Longview.
Markham, Louis N., Longview.
McKean, J. C., Gladewater.
McKeller, G. G., Longview.
McPherson, Dozier B., Longview.
McRee, J. T., Longview.
Moser, Emil R. (Mil.), Gladewater.
Niehuss, Henry H., Greggton.
Pate, John W. (Mil.), Longview.
Price, R. O. (Mil.), Kilgore.
Roberts, J. D., Jr. (Mil.), Longview.
Ross, H. A., Longview.
Routon, Wm. M. (Mil.), Kilgore.
Rushing, Garland S., Longview.
Simmons, D. C. (Mil.), Kilgore.
Stratton, F. L., Kilgore.
Swinney, B. A., Longview.
Van Sickle, R. J., Longview.
Velinsky, Morris (Mil.), Kilgore.
Vines, C. L., Kilgore.
Watkins, E. O. (Mil.), Greggton.

HARRISON COUNTY MEDICAL SOCIETY

Baldwin, John B., Marshall.
Bennett, Wm. H., Marshall.
Carter, Ray H. (Mil.), Marshall.
Cocke, Rogers C., Marshall.
Daniel, DuBose B. (Mil.), Waskom.
Granbery, R. G. (Mil.), Marshall.
Harris, James H., Marshall.
Heidleberg, Chas. H. (Mil.), Marshall.
Hill, John E., Marshall.
Holcomb, N. F., Marshall.
Littlejohn, Frank S. (Pres.), Marshall.
Marsh, John G., Karnack.
McCurdy, Carl, Marshall.
Mondrick, Frank V. (Mil.), Marshall.
Phillips, Arch J., Marshall.
Redding, L. M. (Sec'y), Marshall.
Tenny, Samuel W. (Mil.), Marshall.
Vaughan, Herbert H., Waskom.
Wyatt, Charles A., Marshall.

MORRIS COUNTY MEDICAL SOCIETY

Anthony, Edward Y. (Sec'y), Omaha.
Baber, Dunbar R., Daingerfield.
*Jenkins, Don Juan (Pres.), Daingerfield.
Moore, Rufus D., Jr. (Mil.), Omaha.
Smith, William, Naples.
Truitt, Crawford S., Daingerfield.

RED RIVER COUNTY MEDICAL SOCIETY

Butts, T. R. (Pres.), Annona.
Marx, Melvin, Jr. (Mil.), Clarksville.
Payne, R. W., Clarksville.
Reed, Chas. B. (Sec'y), Clarksville.
Watson, Nowlin, Clarksville.
Wright, James L. (Mil.), Clarksville.

TITUS COUNTY MEDICAL SOCIETY

Bassett, T. R., Mt. Pleasant.
Ellis, John M., Mt. Pleasant.
*Grissom, Thos. S. (Pres.), Mt. Pleasant.
Smith, A. A., Talco.
Taylor, W. A. (Sec'y), Mt. Pleasant.

UPSHUR COUNTY MEDICAL SOCIETY

Childress, Harmon J. (Pres.), Gilmer.
Daniels, John G., Gilmer.
Fenlaw, Jos. L. (Mil.), Gilmer.
Marshall, Tom E., Gilmer.
Ragland, Hugh M., (Sec'y), Gilmer.
Ragland, Madison S., Gilmer.

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The Annual Meeting of the American Medical Association This Year was held at Chicago June 12-16. It will be recalled that the same thing happened last year, except that the meeting last year, as has been the case with our own Association for the past two years, consisted entirely of meetings of the House of Delegates and its related and dependent organizations. This year the meeting was held in full, at least as full as war conditions would permit, which was full enough to meet the expectations of all who attended; and the attendance was good enough, 7,284, to be exact. The attendance from Texas was 169. The New York City meeting, 1940, during the period of the World's Fair, showed a registration of 12,864. The attendance at Cleveland the next year was 7,269, of which number 106 were from Texas. There were only 123 Texas doctors at the New York meeting. The attendance on the Atlantic City meeting, 1942, was 8,238, with only 92 from Texas. These figures indicate the success of the meeting of our national organization this year, looked upon in the beginning as a venture.

There was no fixed entertainment, but it seems that a good time was had by all. The Women's Auxiliary held their meeting at the same time, as per custom, and the group seemed to be unusually busy this year.

Both the technical and scientific exhibits were somewhat restricted as to numbers, but not at all as to interest, and though scattered somewhat, they were well attended. An outstanding feature of the meeting was the exhibition of paintings and drawings made by doctors, most of them pertaining to the war, and some of them undoubtedly outstanding from the artistic standpoint, and some of them of special value because of the psychology of war depicted in the countenances and posture of the fighting men shown.

The following Texas physicians participated in the scientific assembly, in the manner indicated:

First, Mrs. Frank M. Haggard, of San Antonio, served as one of the Directors of the Woman's Auxiliary, and delivered the Pledge of Loyalty to the Woman's Auxiliary of the American Medical Association, at the opening meeting of the Auxiliary.

Dr. Jack R. Ewalt of Galveston, discussed "Psychomatic Problems" at a panel discussion on Neuropsychiatry.

Dr. William F. Mengert, Dallas, joined in presentation of a paper, "The Overweight Obstetric Patient."

Dr. A. I. Folsom, Dallas, read a paper on "The Female Urethra."

Dr. Claude C. Cody of Houston, served as Chairman of the Section of Laryngology, Otology and Rhinology, and was a member of the Executive Committee of the Section. Dr. Cody also delivered an address on "Vitamin Therapy in Otolaryngology."

Dr. Lyle M. Sellers of Dallas, opened the discussion of the topic, "Disturbed Vestibular Function: The Causes and Cures."

Dr. Tinsley R. Harrison of Dallas, served as Chairman of the Section on Experimental Medicine and Therapeutics, and was a member of the Executive Committee of the Section. Dr. Harrison delivered an address on "The Abuse of Rest as a Therapeutic Measure in Patients with Cardiovascular Disease."

Dr. C. F. Lehmann of San Antonio, was a member of the Executive Committee of the Section on Dermatology and Syphilology.

Dr. Arthur G. Schoch of Dallas, presided over a Panel discussion on intensive therapy of early syphilis, with special reference to arsenotherapy, either alone or combined with other agencies.

Dr. Curtice Rosser of Dallas, delivered an address on "Benign Surgical Lesions of the Right Colon."

Dr. Edgar J. Poth, of the University of Texas

Medical Branch, Galveston, presented a motion picture showing "A Technic of Skin Grafting; Instruments and Procedures."

Dr. Roger I. Lee, Boston, Massachusetts, was made President-Elect. Dr. Lee has for many years served as a Delegate from Massachusetts, and as a member of the Board of Trustees of the Association, and at the time was its Chairman. Of interest in connection with his election, was the action of the House of Delegates in asking him to resign as a member of the Board of Trustees, which was necessary in order to make him eligible for the high office the House of Delegates, with practical unanimity, wished him to fill. His term as Trustee expired with that meeting, and he was not eligible for reelection.

Dr. Stanley J. Seeger of Texarkana, Texas, was elected Vice-President. Dr. Seeger is Chairman of the Council on Industrial Health.

The Distinguished Service Award went to Dr. George Dock, of Pasadena, California, a distinguished physician well known in Texas. He was elected over Dr. Isaac A. Abt, of Chicago, one of the outstanding pediatricians of the world, and Dr. Simon Flexner, of New York, of equal distinction in the field of scientific medicine, and of attainments too well known to warrant discussion here. This Award is an effort on the part of the House of Delegates to set up a measure of compensation for those members of the profession who have made medical history, but who have not been available for the Presidency, heretofore the top award.

Atlantic City was chosen as the place of the 1947 Annual Meeting, with St. Louis as the runner-up. In this connection, it may be remembered that the 1945 meeting will be held in New York City, and the 1946 meeting in San Francisco. An interesting item in this connection is the fact that the Board of Trustees are planning to make the 1947 meeting an anniversary affair, it being the one-hundredth anniversary of the Association. The New Jersey Association being perhaps the oldest medical organization in the United States, it is quite appropriate that the one-hundredth anniversary of the American Medical Association be celebrated in Atlantic City.

The House of Delegates of the American Medical Association This Year ran true to form. That is to say, it worked hard and accomplished much with a minimum of lost motion. The proceedings of the Chicago meeting were published in *The Journal of the American Medical Association*, June 24 and July 1 numbers. The Reports of the Officers, Councils and Committees were published in the April 29 number of *The Journal*. It is impossible to editorially convey to our readers anything like a working knowledge of these reports and the action of the House of Delegates thereon, not to mention the numerous resolutions and items of new business brought before the House in due order, at the time of the meeting. This editorial, as is the custom, may be looked upon as a report of the Delegates from Texas and, in the nature of the case, it cannot be much more than a tabulation or an abbreviated summary.

Texas was represented at the meeting by the following: Drs. Holman Taylor, Fort Worth; F. L. J. Blasingame, Wharton; E. W. Bertner, Houston; B. E. Pickett, Carrizo Springs, and E. H. Cary, Dallas.

Dr. Cary was a member of the Reference Committee on Executive Session, which was the only committee assignment drawn by Texas this year. As it happened, this committee dealt with some of the most important problems of the meeting, and in our opinion handled several very delicate situations most admirably, indeed, and to the benefit of the medical profession and its dependent public.

It will be recalled that in the report of our delegates covering the meeting of the House of Delegates last year, the creation of the "Council on Medical Service and Public Relations" was accorded the leading place in the matter of importance. Much was said on the subject this year, and notwithstanding a very comprehensive and extended report from the Council, there was a feeling that it had not, in fact, so far accomplished the purpose underlying its creation. The Council anticipated such criticism, and explained that it designedly proceeded very slowly in the matter organization and establishment of policy. Those who expected the Council to jump in immediately and set the river afire, establish an office at Washington and tell Congress and the Administration and all the Bureaus where to head in, were definitely disappointed. Those who felt that the important matters in hand and to come to hand should be dealt with conservatively, and that the stream to be created should be deep and therefore should run smoothly, rather than shallow and with the usual agitation and bubbles, were better satisfied. On the whole, it would appear to us that a great movement is well under way, and that things are beginning to happen.

An office has been set up at Washington, and the Board of Trustees has promised ample funds for its maintenance and support. Perhaps to an important point, this office is coöperating with another office set up by the medical profession and concerned directly with the public health, and which might have been looked upon as being an antagonistic

situation. Such has not, fortunately, been the case. It is expected that other organizations will enter the picture in this connection, but it is hoped that eventually there will be one office at Washington in a position to represent the medical profession in all matters proper to be considered by the medical profession in connection with national legislation and national administration. This office has already established liaison with the several state medical organizations, and has asked for and obtained the appointment of contact men, so that information may be promptly circularized through proper channels. It is expected that conferences hereafter will be held with representatives of state societies, as occasion may require, and it is expected that a "field agent" will be appointed, with appropriate duties.

It was the expectation of many who participated in the formation of the Council that it would absorb the Bureau on Medical Economics as a Research Bureau, as well as the Bureau on Legal Medicine and Legislation, and even the Bureau of Public Relations. The Council itself recommended the amalgamation, and one Reference Committee approved it. Another Reference Committee, to which the same problem had been referred, disapproved. The whole matter was referred to the Board of Trustees. As a matter of fact, the Council had worked in very close relationship to the three bureaus concerned, presumably under the direction of the Board of Trustees, and so far all is well.

A strong sentiment was developed in favor of transferring to the United States Public Health Service all government agencies dealing with health. Primarily the idea was to remove the Children's Bureau from the Department of Labor to a place where it more properly belonged. It was felt that the present aims of the Children's Bureau might thus be diverted, and these aims don't seem to suit many doctors. Congressman Dr. A. L. Miller of Nebraska, has introduced a measure in Congress to that end. It received the warm support of the House of Delegates at Chicago. Today the medical and health functions of the United States are divided among a multiplicity of departments, bureaus and federal agencies. The United States Public Health Service and the Food and Drug Administration, are in the Federal Security Agency; the Children's Bureau and its much discussed Emergency Maternal and Infant Care program, is in the Department of Labor, and the Veterans Administration and many other medical functions are separate bureaus of the government with no coördinated head.

A proposal that the problem of occupational diseases should be dealt with under the supervision of "Federal, State and local Departments of Health" met the disapproval of a resolution introduced by the Section on Preventive and Industrial Medicine and Public Health, which resolution favored the development of Industrial Health and Hygiene problems under the supervision and guidance of the United States Public Health Service, and State Departments of Health. The House of Delegates held that this and other Federal Health Acitivities "could best be done through the state and local authorities with moneys allotted to them through the Secretary of Labor rather than through the United States Public Health Service as suggested in the resolution."

A resolution requesting the Congress to create a Department of Public Health with a cabinet officer as its head, to which all health activities should be assigned, was introduced. Several resolutions referred to the matter of getting the health activities of the government into one basket, with a variety of purposes behind them. There was apparently some confusion in their consideration, but the resolution itself was adopted, even though it expressed an already adopted policy of the Association. Even so, there are phases of the problem which eventually will need further consideration.

Socialized Medicine received a fair share of attention, although not nearly so much consideration as heretofore. The Speaker of the House, discussing the subject briefly, reminded us that the claims of proponents of socialized medicine that the medical service rendered our Armed Forces is of a sort and should work in civilian practice, is beside the point, for the reason that the skill brought to bear on medical needs in our military forces are fundamentally the product of our civilian system of medical training and practice, beside which all should be reminded that it is hardly feasible to apply a military regimen to civilian life. President-elect Dr. Herman L. Kretschmer, recommended that each physician in this country devote at least two hours a day to educating the people in the significance of socialized medicine, which system would undoubtedly result in the deterioration of medical service, limitation of choice of physician and increased taxes.

A resolution from the Silver Bow County Medical Society, Montana, and another resolution from Montana condemning socialized medicine and medical legislation providing for the same, called for vigorous action against socialized medicine legislation, evidently both of them in support of the contention that there should be an active office set up at Washington for the purpose of

dealing with that and other medical legislation. One of these resolutions emphasized the need of having either the American Medical Association, the National Physicians Committee, or some such organization take over the task of combating such legislation as that represented by the Wagner-Murray-Dingell bills. The other resolution merely recommended that some organization be chosen to represent the political and ecomonic interests of the physicians of America before the Congress of the United States and the people of America. This recommendation carried the proviso that "such an organization should be supplementary to the American Medical Association rather than an entirely independent and, perhaps, rival organization." The danger to medicine in the organization of societies, national, regional or local, to take the political play away from the American Medical Association, did not seem to excite very many members of the House of Delegates. It seemed to be the feeling that the all-embracing character of the American Medical Association would be found sufficient to care for any medical situation, political, scientific or otherwise. A resolution endorsing the United Public Health League "as a vehicle for meeting the demands of the rank and file membership of the American Medical Association in the economic and political fields" was disapproved, on the ground that while that organization "may represent the group included in its membership, it cannot adequately represent the remaining 115,000 members of the American Medical Association located in the other forty-two states."

It was apparent that the National Physicians Committee was looked upon with favor by the members of the House of Delegates. The Speaker of the House thanked this committee for dependable data as to how our people look upon the proposed radical changes in the practice of medicine incident to the adoption of socialized medicine in any degree. President Paullin stated that the recent survey of public opinion made by the National Physicians Committee "has made clear that what the people want most is a better distribution of medical service at a lower cost," and that sickness insurance, whether on a compulsory or voluntary basis, must be considered as a means of reaching that end. He suggested that the federal government might wish to encourage compulsory sickness insurance by offering subsidies to states in which such programs are developed. He suggested further that federal aid might become available for the encouragement and expansion of voluntary insurance plans. President-elect Kretschmer praised the National Physicians Committee, stating that he did not "know of any other organization capable of performing such a splendid piece of work as that which it has carried out." The Reference Committee on Legislation and Public Relations commended the Bureau on Public Relations for coöperating with the Committee in using the data resulting from its survey. A resolution was introduced calling for "suitable and proper survey of public opinion regarding the attitude toward organized medicine, medical care and proposed medical legislation," which the resolution proposed should be made by contract with an outside organization, and that the analysis of the information be used by our Council on Medical Service and Public Relation and be not discarded, with the end in view of molding public opinion into its proper form." The resolution was rejected in spite of the recognized value of such a survey, because of the fact that the National Physicians Committee had already made one, and that the Council on Medical Service and Public Relations was making use of the information thus attained, in addition to which the Council could make such a survey at any time, if it felt that one were needed.

A resolution from Michigan, anticipating sweeping changes in the practice of medicine in this country which are in prospect, called for leadership of the medical profession in all such matters, and pointed to the fact that numerous plans for the distribution of medical care have been offered by the medical profession, some of which have been most successful, indeed. The resolution called upon the American Medical Association to effect leadership in encouraging and aiding State Medical Societies in setting up "voluntary prepayment medical service plans, or to expand as rapidly as possible existing programs, in order to fit community needs, to bring service to all of the people, and to prevent waste and confusion in medical practice which will result from a government-operated, compulsory system." The Reference Committee to which the resolution was referred, merely called attention to the statement made by President Paullin, in addressing the House of Delegates, from which statement we quote:

"The question of sickness insurance on a compulsory or on a voluntary basis is one of the great problems which must be considered as a means of reaching this end. Conceivably the federal government might wish to encourage compulsory sickness insurance by offering subsidies to states in which such programs are developed, and it is also conceivable that federal aid might become available for the encouragement and expansion of voluntary insurance plans. The rapid increase in the numbers of those who are insured against hospital costs, accidental injury and sickness is evidence that the American people still desire to express their own independence and provide care for themselves. In-

dustry has developed its own type of prepayment insurance against the cost of medical care by furnishing hospitalization and medical service supplied by physicians on a full-time basis. With these methods and other proposals which undoubtedly will develop there is brought up for consideration many questions of policy which can be met only by adequate consideration by the governing body of this Association."

The Council on Medical Service also discussed the problem of compulsory and voluntary prepayment insurance, at length and to good effect. The Council calls attention to the platform adopted by the Association six years ago, covering this very matter, and suggested that it still holds good, with such modification as will recognize changed conditions. At any rate, the Council recommended that in carrying out any plan for the widespread distribution of medical care, the basic principle should be the necessity of maintaining scientific standards and the quality of service rendered. The Council advised that it is not in the public interest that economic barriers to medical service be utilized as a subterfuge to overturn the whole order of medical practice or the democratic plan of government. It seemed to be the consensus of opinion of the House of Delegates that it is not necessary that a modified system of socialized medicine be set up in order to avoid the ultimate in government control; that there should be ways and means of accomplishing this end to the satisfaction of all concerned without resorting to such action, all within the boundaries of the "American way." The Council opines that "compulsory sickness insurance in no instance has given as good a health record as the American system."

Resolutions from Missouri and California called for considerable modification of the Maternal and Infant Care program for wives and infants of enlisted men in our Armed Forces. A resolution from Idaho recommended the transfer of this service from the Department of Labor to the Department of Public Health.

The Reference Committee to which these resolutions were referred, merely pointed to the report of the Council on Medical Service and Public Relations, which Council had discussed the whole problem rather in detail. It appears that there has been no division of opinion with respect to the desirability of providing generously for all of the needs of families of service men whose pay grades render government assistance necessary. The action of the government in making funds available for this purpose was commendable. However, the Council stated that there is room for honest differences of opinion as to administrative methods. The Council did not feel that the medical profession approved of the present method of paying for the service concerned, and that cash allotments for such care would be more in line with the American way. The Children's Bureau opposed such method of payment on the ground that for a multiplicty of reasons much of the money thus paid would likely go astray, and in many instances would not be applied to payment for medical service rendered, in addition to which the Bureau held that because of the inexperience of many of the mothers concerned, unqualified practitioners would be employed. The Council insisted that ways should be found to obviate such a contingency. It was also held that the mother should be allowed to employ a physician whose fees are in excess of those allowed by the government, paying the difference herself, but the Bureau insisted that such a procedure could not be allowed. Representatives of the American Academy of Pediatrics were reported as feeling that the whole plan was a "possible trial balloon, bridgehead or entering wedge looking toward the extension of medical service in point of time beyond the duration of the war and in breadth of scope, both as to kinds of service and as to groups served." They served notice that they would wholeheartedly coöperate in the program for the duration, but not beyond. All of which is to leave the matter of Emergency Maternal and Infant Care more or less in the atmosphere.

A resolution was adopted advising the President and the Congress of the United States that the current drastic regulations restricting the number of medical students qualified to enter the courses of medical instruction should be corrected at once, else there will be such a serious shortage of medical students as to affect the public health. President Paullin called attention to the matter in his address. He advised that the accelerated medical training program contemplates the graduation of approximately 6,000 students each year. The regulations heretofore allocated 55 per cent of the places to the Army, 25 per cent to the Navy, and 20 per cent to be filled by women, physically disqualified men and men deferred by Selective Service. Recently the Selective Service directives have been changed in this respect, so that on July 1, there will be no deferments under Selective Service for premedical students, which abruptly stops practically all students who are not either women or physically disqualified men, to which group we must look for medical service for the public in the near future. There is already an annual deficit of 2,200 physicians caused by death or forced retirement from practice. The Council on Medical Education and Hospitals, and Procurement and Assignment Service, have both been most active in opposing the directive mentioned, particularly as it concerned premedical students. The situation was believed to be most serious, indeed, hence the adoption of the very strong resolution mentioned.

A resolution from Indiana called for the organization by the Board of Trustees of a Speakers Bureau, when personnel becomes available, to address audiences in the several states on the economic, social and scientific aspects of medicine. Under just what procedure this is to be done does not appear in the resolution, but it was adopted, and presumably the Board of Trustees and the Council on Medical Serv-

ice and Public Relations, will do something about it, eventually, if not now. The resolution also called for personnel to work with the Secretary of the Association in maintaining contacts with constituents state societies. It will be recalled that such a policy was once set up and almost as speedily discontinued because, we understand, of the suspicion the brethren had that the American Medical Association was trying to thus put something over. It should not be that way, but it was at that time, and just possibly is now.

The Council on Medical Education and Hospitals was asked to take "the necessary steps to have each approved medical school given an adequate course in medical sociology, medical economics, and medical ethics." It will be recalled that the Association some years ago made the same demand. Some of the medical colleges actually undertook to comply therewith, but it was quite evident at the time that the teaching staffs of most medical colleges felt that there was not time for such studies, in view of the time required to teach the expanded rudiments of scientific medicine. Doubtless nothing will come of the demand at this time.

The American Optometric Association, in a rather long and wordy resolution asked the Board of Trustees of the American Medical Association for a conference or conferences between proper representatives of the two professions, for the discussion of many problems of mutual interest, particularly optometric education and its relation to medical education; relation of practitioners of optometry and of medicine; professional degrees, and such other matters as may be germane to the development of suitable standards of education from both the medical and optometric viewpoint; legal and legislative matters; ethics, particularly as relates to the practice of medicine and the practice of optometry, with a view of defining suitable relations in the joint field, and for the development of mutual respect and support. The House of Delegates denied the request.

A resolution was adopted, opposing the training and practice of non-medical personnel in audiometry, except for service under the direction and supervision of qualified physicians. It seems that courses in audiometry for non-medical personnel are being planned, and the House of Delegates saw no reason for adding another group of quasi-medical personnel in the practice of medicine.

The House of Delegates, acting upon a decision by the Council on Medical Education and Hospitals, reiterated its position that "only graduates of approved schools of medicine should be licensed in the practice of medicine," which decision, incidentally, lends itself to many applications. It is a definite stand against cults, except and unless the cults maintain teaching institutions which can measure up to the high standards of the Council on Medical Education and Hospitals.

The essentials of acceptable medical schools were revised in the light of modern trends in medical education, as were the essentials of acceptable schools for x-ray technicians. The new directive significantly provides that excessive tuition or other student fees or commercial advertising, shall be considered as unethical. The finger was put on another spot about to become sore in the body of medical education. Schools conducted primarily for the purpose of substituting students for paid technicians, will not be considered by the Council for approval.

The perennial question of sex discrimination in the field of medicine was raised in a resolution which complained that young women have been discouraged from studying medicine because of sex limitations, and that the Army and Navy programs have too long and almost entirely neglected women in the appointment of medical officers. The resolution was disapproved, but it was referred to the Council on Medical Education and Hospitals, with instruction that it give every consideration to the problem.

A resolution from Michigan gave official status to the discussion and recommendation by President-elect Kretschmer with reference to the neuropsychiatric casualties as a result of the war, and recommended that the President of the American Medical Association appoint a committee for the consideration of the problem. The resolution was adopted.

Dr. Kretschmer, in his address to the House of Delegates, called attention to the serious problem of drug therapy, with special reference to the laxity in medical prescription writing. He stated that he had reviewed 5,000 consecutive prescriptions in four pharmacies, and was amazed to find that in one pharmacy 38.4 per cent called for proprietary preparations, and that in 1,000 prescriptions reviewed in a teaching hospital, 14 per cent were for proprietary medicines. He thinks this deplorable situation is due to the fact that the teaching of pharmacology has not fulfilled its functions. The Council on Medical Education and Hospitals was directed to give further consideration to improvement in the teaching of pharmacology in medical schools, particularly as relates to prescription writing and drug therapy.

Opposition was strongly expressed to the unionization of employes in hospitals, on the ground that to do so might jeopardize the health, safety and lives of patients. The Council on Medical Service and Public Relations, in discussing the matter, quoted the following very pertinent lines in this connection, from a decision of the Supreme Court in the State of Pennsylvania, rendered January 6, 1941:

> "A hospital is not an industry. It has not been the custom in the past to unionize hospitals. The effect of unionization and attendant efforts to enforce demands would involve results far more sweeping and drastic than mere property right.
>
> "The question of profits for the employer or wages for the employes is not alone involved. It is not merely a matter of suspending operations, ceasing work and stopping production, such as might be true in a steel mill or automobile factory. It is a question of protecting the health, safety and, in many cases, the very lives of those persons who need the service a hospital is organized to render."

The wartime shortage of nurses was brought to the attention of the House in a resolution which recited several alleged causes for the shortage, including the continued elevation of requirements for nursing licensure, even to an "impractical extreme." The resolution suggested that the Council on "Medical Education and Hospitals engage in a coöperative study of the problem as it exists now, and as it existed before the war emergency, the coöperation to be with the several associations concerned. The resolution was adopted, but with the elimination of the recited causes for the shortage.

Much attention was given to the problem of tuberculosis control. The Council on Medical Service and Public Relations had revamped a resolution incorporated in a communication from the National Tuberculosis Association, which resolutions the Council thought went a bit too far afield in a number of particulars. The position of the Council was based upon four principles, the last of which was that "any extension of efforts better to control tuberculosis should be in keeping with the basic principles enunciated from time to time by the House of Delegates." A resolution was introduced by the Missouri delegation approving federal legislation on the subject. The Reference Committee on Hygiene and Public Health approved the resolution submitted by the Council on Medical Service and Public Relations, with

further changes having to do with procedures on the part of practicing physicians and health authorities, which recommendation was further changed by the House of Delegates to say merely that the service be rendered by the practicing physician "with collaboration of suitable medical authorities," and then the whole matter was referred to a joint reference committee for further consideration. The final decision was that the federal legislation referred to carried too much power, and was subordinate in financial matters to the Federal Security Administration. It was held by the joint committee that ways and means for carrying out the objectives of the resolutions concerned could be found in the Direct Aid to Communities feature of the Lanham Act.

The teaching of biologic science and physical fitness in the public schools, was again worked over by the House of Delegates. The idea was approved, "if suitable personnel can be found for the teaching of the several subjects involved, such as the role of bacteria and parasites in disease, cell growth in relation to heredity and malignant disease, and if accurate vocabulary in matters pertaining to sex and reproduction, and an intelligent understanding of the theories and basic facts of biologic genesis and evolution can be found.

A resolution calling for better compensation for full-time medical specialists in the Public Health field, who have been specially trained for their highly important work, was approved. The resolution called for compensation comparable with the net professional income of the good surgeon or internist. It also called for reasonable security in tenure of office. The resolution was submitted by the Section on Preventive and Industrial Medicine and Public Health.

A resolution from Michigan called for a Board of General Practice comparative to the Boards of the specialties "for the regulation, control, supervision and graduation of the general practice sessions," whatever that and the several other provisions of the resolution may mean. The resolution was not adopted, because of lack of jurisdiction. It was referred to the Council on Medical Education and Hospitals for transmissal to the Advisory Board for Medical Specialties. It will be recalled that a similar movement was inaugurated two or three years ago in the House of Delegates, but in a more elaborate and confusing form. The Reference Committee at the time was in sympathy with the idea of giving general practitioners a status relative to that held by the specialists, but there did not seem to be any way to go about it. Complaint at the time was that a general practitioner could get hardly any consideration at all at the hands of the government or many of the large corporations employing physicians, except he held some sort of national certificate, and the effort was to provide that basis for his professional standing. Verily, the whole matter of the specialties needs to be revamped.

The Board of Trustees of the Association was requested to arrange for a series of conferences between representatives of the American Medical Association and of private insurance carriers, with a view to developing simplification and standardization of forms.

The discoverer of general anesthesia came very definitely, though inadvertently, into the legislative picture, through a resolution from Connecticut endorsing the celebration of the "Discovery of Practical Anesthesia" by Dr. Horace Wells of Connecticut. The resolution immediately brought on a controversy because of that statement, even though the resolution also referred to "a practical method of anesthesia by nitrous oxide." The resolution was rewritten so as to recite that Dr. Wells devised a practical method of anesthesia by nitrous oxide, which event was to be celebrated, and in which matter the House of Delegates was entirely sympathetic.

A resolution from California praising the Secretary of the American Medical Association and recommending that he be made Secretary Emeritus for Life, and retired at the expiration of his present term of office, and a companion resolution requesting the Board of Trustees to replace the present Editor of *The Journal*, were given consideration in an executive session of the House. The Reference Committee to which the resolutions were referred, commended the "loyalty and efficiency with which the two officers concerned have for many years served the Association in carrying out the policies established by the House of Delegates." The Idaho delegation asked that the activities of the Editor of *The Journal* be limited. These resolutions failed of adoption by a vote of 144 to 9.

The National Medical Association, representing the ethical Negro physicians of the nation, through resolution petitioned the American Medical Association to help "continue and enlarge the opportunities for the elevation of the standard of medical practice among our Negro physicians by (1) increasing municipal, county and state hospital facilities in which the Negro physician may practice; (2) allowing the members in good standing of the National Medical Association to become members of the constituent societies of the American Medical Association to the end that members of the National Medical Association, both South and North, may become members of the American Medical Association and thus enjoy the opportunities of the scientific features of the conventions and partake more fully of the benefits of organized medicine; (3) until such changes as are necessary in the constitutions of the constituent societies of the American Medical Association can be brought about which now exercise a bar to the membership of Negro physicians, that members of the National Medical Association be allowed the privilege of Associate Membership in the American Medical Association."

The House of Delegates was wholly in sympathy with the idea of doing what could properly be done for the advancement of Negro physicians of the country, but it had to recognize that decision as to membership in constituent county medical societies or in hospital staffs, is outside of the jurisdiction of the American Medical Association. The resolution of necessity was rejected.

The Council on Medical Service and Public Relations took up the cudgel for the Veterans Administration and sought to bring about arrangements whereby physicians employed therein could establish or continue their affiliation with the American Medical Association, many of whom had enjoyed such relations previous to their employment by the Veterans Administration. The Judicial Council held that the privilege could be brought about only by amendment to the Constitution. The Reference Committee to which the matter was referred, could find no solution at this time, even though it was in sympathy with the idea of taking care of physicians in the Veterans Facilities, and recommended that the problem be referred to the Board of Trustees, with the request that the Board report on the matter at the next annual meeting.

The Board of Trustees were requested to prepare a plan whereby students of approved medical schools may become student members of the Association.

Two resolutions proposing amendments to the Constitution which would affect the apportionment of Delegates, were refused, because of war conditions, and the impossibility of anticipating accurately the centers of population throughout the country. Both of the proposed amendments provided that a minimum of two delegates be allowed each State Medical Association. The idea apparently was to equalize the geographic and population factors entering into the problem of representation.

An amendment to the by-laws was introduced by the District of Columbia, providing that an Associate Member of the Medical Society of the District of Columbia might, under certain conditions, become a Fellow of the American Medical Association. The Reference Committee having the resolution in charge, expressed sympathy with the idea, but recommended that the matter be referred to the Board of Trustees for further study, which was done.

A pending amendment to the Constitution, providing for the selection of members of the Board of Trustees on the basis of geographic area, was voted down as being both unwise and impracticable.

From Michigan came a resolution providing for the change of the organizational and incorporational set-up of the Association, so as to permit of economic and political activities. The resolution was returned to the Michigan State Medical Society for clarification and more specific recommendation.

The Secretary reported very encouragingly on the membership of the Association for the past year. On April 1 of this year the membership was 124,452. On the corresponding date in 1943, the recorded membership was 122,741. As to Fellowship, the record on December 31, 1943, showed 70,269 Fellows. On April 1, 1944, the number of enrolled Fellows was 69,304. The loss in Fellows because of the war situation was not nearly so great as had been expected. A tabulation of the number of physicians in the several states, and the number who are members, and who are Fellows, showed Texas as having 6,952 physicians, of which 4,607 were members, and 2,318 were Fellows. Texas ranks seventh in the number of physicians; seventh in the number of members, and eighth in the number of Fellows.

Financially, the Trustees advise that the Association is doing well. The net gain in 1943 was $718,-873.76, which was approximately twice as much as the net gain of the year before. It seems that there had been unexpectedly large receipts on various accounts, including advertising and subscriptions to the several publications of the Association, to mention only an item or so involved. There were significant reductions in expenditures incident to the operation of various Councils, Bureaus, Committees and Departments. Legal expenses also were lower than usual. There was an unsought reduction in wages and salaries, incident to a war depletion of personnel.

The Board of Trustees reported interestingly on the Council on Pharmacy and Chemistry, which Council has entered its fortieth year of service to the medical profession and to the public. We are apparently too much inclined to neglect this most important agency of the American Medical Association. Without its services, there would be chaos in the field of proprietary medicine, and consequently in the advertising field, which would be enough trouble for one time. There are those still among us who can remember what happened before this Council was set up. It was bad enough then. It would be much worse at the present time, when opportunities for exploitation in this among other fields, have been greatly enhanced.

The Board of Trustees also reported that the Farm Security Administration has expanded until it now has borrowers among the medical care groups in all but nine of the States and the District of Columbia. Money is furnished to borrower families through plans operating on a fee for service basis, and other methods of payment for medical service.

Changes in the Official Family.—Two changes in the Official Family of the State Medical Association have occurred since the annual meeting. While quite probably the facts in the case are rather well known to our readers, it will not be amiss to make assurances doubly sure, because of the importance of the offices concerned.

Dr. J. Edward Johnson, formerly Councilor of the Thirteenth District, has removed from Mineral Wells to Austin, which is in the Seventh District. As a consequence, his resignation as Councilor was in order. Upon receipt of his resignation, President Dr. Connally appointed Dr. O. B. Kiel of Wichita Falls, to succeed him in office. Dr. Kiel will fill the unexpired term, which will be the balance of this year, or, to be exact, until next May. The work of Dr. Johnson in his district and the District Medical Society, and the State Medical Association as for that, has been notable. The medical profession of the State will regret to see him step down and out of this important office, but will not begrudge him any satisfaction or advantage he may get from his removal to Austin. He has offices in the Norwood Building there.

The long and brilliant record of Dr. Kiel both in the scientific and organizational phases of the work of the Association, is also well known to the medical profession of the State, and the loss incurred by the removal of Dr. Johnson from his district will be compensated for by the appointment of Dr. Kiel to succeed him in the high office of Councilor. This can be said in a manner complimentary to both of them. We are fortunate, indeed, that Dr. Kiel is available and has consented to serve.

It will be recalled that Dr. H. R. Dudgeon of Waco, was appointed a member of the Council on Medical Economics by President Dr. Connally, and his appointment confirmed by the House of Delegates. He took the place of Dr. Tom B. Bond on the Council. Dr. C. C. Cody of Houston, having been elected President-elect of the State Medical Association, resigned as a member of the Council on Medical Economics, and as its Chairman, and President Dr. Connally appointed Dr. W. A. Lee of Denison, to succeed Dr. Cody as a member of the Council, and then appointed Dr. H. E. Griffin of Graham, to succeed Dr. Cody as Chairman of the Council. Dr. Griffin has served on the Council for a number of years, and is eminently qualified for his new responsibilities. Dr. Lee has been a leader in the medical profession of Texas, in all of its activities, for many years. The Council on Medical Economics is in the mouth of the gun, so to speak, in these critical times. We commend the judgment of our President, if we may do so, in his rearrangement of its personnel, and assume to express the appreciation of the medical profession to both Drs. Griffin and Lee in the matter of their acceptance of the responsibilities concerned.

ANTIBIOTICS

CHAUNCEY D. LEAKE, Ph. D.
(Executive Vice President and Dean, University of Texas School of Medicine)
GALVESTON, TEXAS

Antibiotics are chemicals which occur naturally in molds and inhibit growth of bacteria. Their action was first observed by Pasteur and Joubert[8] in 1877, who found that the growth of certain air-borne organisms inhibit anthrax bacilli. Modern interest began in 1928 with the work of Fleming, a pupil of Sir Almroth Wright. In 1922 Fleming had described lysozyme, an antibacterial ferment occurring in human secretions such as tears and nasal secretions, and in egg white. In 1928 Fleming found a mold on a culture plate of staphylococcus, and noted that staphylococcus growth did not occur in the region of the mold. This mold was the source of all penicillin used until recently.

Fleming identified the mold as *Penicillium notatum*, and found that extracts could be obtained from it which inhibit the growth of many types of common bacteria. Fleming's great report appeared in 1929,[6] but unfortunately attracted little attention.

In this report Fleming described how he used "penicillin" (the name given to the active material by him) to obtain pure cultures of B. influenzae, since it inhibits the growth of common contaminating organisms but not of B. influenzae. However, in this important paper Fleming also reports that penicillin has very little toxicity for tissues or for animals when injected into them, and he stated that "it may be an efficient antiseptic for application to, or injection into, areas infected with penicillin sensitive microbes."

Systematic work on penicillin began at Oxford in 1938 under Florey and Chain[2] on a grant of a few thousand dollars from the Rockefeller Foundation. Meanwhile, however, other inhibitors of bacterial growth had been isolated from other molds. DuBose obtained "gramicidin" from B. brevis.[5] This is a mixture of polypeptids but is toxic for mammalian tissue. Waksman found a number of antibiotics from various soil molds.[11] These were named "actinomycin", "fumigacin", and "calvacin", with reference to the mold from which they are obtained. They are also toxic to mammals.

ASSAY OF PENICILLIN

Since penicillin is not yet available in chemically pure form, although it is obviously highly purified, and since it contains contaminating materials, it has to be assayed. This results in the unfortunate necessity of administering it in "units." The method of assay is technically difficult, but can readily be carried out. Toxicity standards established by the Food and Drug Administration require that no deaths occur on intraperitoneal injection of 2,000 units in five mice weighing 20 Gm. each. It is considered nonpyrogenic if two out of three rabbits show less than 0.6 C. temperature rise after the intravenous injection of 2,000 units in 1 cc. of solvent per kilogram.

The Oxford or Florey Unit for penicillin was described by Abrams and associates in a highly important clinical report.[1] It is the amount of penicillin dissolved in 50 cc. of meat broth which just inhibits the growth of a standard test strain of Staphylococcus aureus. Thus, material containing one "unit" of penicillin per milligram of material just inhibits the growth of the test strain of Staphylococcus aureus in a dilution of 1 to 50 thousand. The common technique of bioassay involves use of the "ring method."*

TABLE 1.
Sources of Antibiotics So Far Discovered

Antibiotic	Source	Author	Organisms Affected
Penicillin	Penicilliun notatum	Fleming, 1929	Gram-positive & negative
Gramicidin	Bacillus brevis	Dubos, 1939	Gram-positive
Actinomycin	Actinomyces antibiotics	Waksman, 1941	Gram-positive
Streptothricin	Actinomyces lavendulae	Waksman, 1942	Gram-positive & negative
Penicillic Acid	Penicilliun cyclopium	Raistrick, 1942	
	Penicilliun puberulum	Alsberg, 1913	Gram-positive & negative
Claviformin	Penicilliun claviforme	Chain, Florey, 1942	Gram-positive & negative
Identical with Patulin and Clavicin	Penicilliun patulum Aspergillus clavatus	Raistrict, 1943 Waksman, 1943	
Fumigacin	Aspergillus fumigatus	Waksman, 1943	Gram-positive & negative
Aspergillic Acid	Aspergillus flavus	White, 1943	Gram-positive & negative
Helvolic Acid	Aspergillus fumigatus	Chain, Florey, 1943	Gram-positive

PHARMACOLOGY OF PENICILLIN

Penicillin may act like the sulfonamides by interference with the utilization by bacterial cells of "vitamin" or chemical factors necessary for metabolism and growth. However, there is evidence that it may promote the growth of mammalian tissue cells. It is thus ideally suited for combating sepsis.

Since penicillin is inactivated by acid gastric juice, it cannot be administered by mouth. Subcutaneous injection is painful, but it is tolerated by muscle or by vein. Since it is rapidly excreted by the kidneys, it must

Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 20, 1944.

*EDITOR'S NOTE.—An interesting discussion of the chemistry of penicillin presented was deleted, with the author's permission, to comply with the regulations of the National Research Council that such matter not be published.

be frequently administered. Since it is inactivated by heavy metals and by oxidation, it should not be used in association with oxidizing or heavy metal antiseptics. Penicillin has no inhibitory effect on leukocytic activity.

There is no effect on blood cells. The drug seems to be rapidly distributed through the body but equally rapidly concentrated and excreted by the kidneys. While there may be a slight fever rise when penicillin is first administered, it usually immediately goes down. No other signs of any toxic action have been observed. However, Cornman significantly notes that normal tissue culture cells survive in a penicillin solution which is lethal to malignant cells.[4]

Administration is generally intramuscular. For intravenous use, it is essential to employ a pyrogen-free preparation and give continuously by drip. Local application is made by distilled water solutions, by powdered calcium penicillin, or in ointments mixed with vaseline. It apparently requires about 2,000 units per kilogram of body weight in twenty-four hours to eliminate average infections. The standard single dose for an adult is around 15,000 Oxford units repeated not less than every three hours.

CLINICAL USE OF PENICILLIN

The clinical use of penicillin was begun at the Sir William Dunn School of Pathology in Oxford. It was found that intramuscular injection, frequently repeated, is highly successful in generalized pyogenic infections accompanied by local lesions in the bones, lungs and heart valves, in mastoiditis, in eye infections, in chronic sinus infections, and in empyema.

Florey summarizes the clinical status of penicillin by stating that present evidence indicates that it is useful:[7] (1) as a preventive of infection in wounds; (2) in the promotion of healing in burns and for ensuring the success of skin grafts; (3) in infections due to sensitive organisms, either chronic or of such severity as to render the prospect of death likely, which have not responded to other forms of treatment; (4) in acute infections due to sensitive organisms; (5) in the rapid curing of gonorrhea, including sulfonamide-resisting cases; (6) in pneumonia, and (7) probably in gas gangrene. More recently penicillin has also been found to be highly effective in syphilis. It has already been established that penicillin resistance may occur, in which case artificial fever may help as an adjunct.[10]

While penicillin is the most dramatic antibiotic, there is reason to believe that other related agents may be found which will be even more satisfactory clinically since they may be effective against a wider variety of organisms than penicillin.

SUMMARY

Antibiotics are chemical agents which are extractable from molds and which inhibit the growth of pathogenic bacteria. Upon chemical identification of penicillin, the most important antibiotic, it may be expected that others will be synthesized in such manner as to offer clinicians many varieties of nontoxic, highly effective chemotherapeutic compounds.

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MOTION PICTURES FOR LOAN

The British Information Services, Film Division, 513 Cotton Exchange Building, Houston 2, Texas, announces the availability for loan to county medical societies, and other groups, of a motion picture film entitled, "Subject for Discussion," which, it is thought, might be used advantageously in an educational campaign against venereal diseases. The film was made for the purpose of convincing the British public that it was necessary for them to know the effects of venereal diseases and that it was dangerous to shrink from facing or discussing them. The film has been approved by the New York Headquarters of the American Social Hygiene Association.

The Film Division also announces that a number of 16 mm. sound films devoted to the study of zoölogy, embryology and botany, of especial interest to teachers and students of these subjects, are available for loan. The titles of the biologic films, which carry rental costs from fifty to seventy-five cents, are as follows: The Amoeba (9 minutes); the Blowfly (18 minutes; The Frog (17 minutes); The Earthworm (18 minutes); The Development of the Trout (16 minutes); The Sea Urchin (25 minutes); The Development of the Chick (23 minutes); Life Cycle of a Plant (11 minutes); Heredity in Man (14 minutes); Heredity in Animals (18 minutes).

Acceptance of these films will be taken as an indication that the borrower agrees to pay all transportation costs; not to hold over the films without permission; to replace them in their metal containers, and on the same reels; to assume the expense of replacing destroyed, damaged, or lost films; and to return them promptly after the last scheduled exhibition to: British Information Services, 513 Cotton Exchange, Houston 2, Texas.

Prospective borrowers are requested to advise if the films will be received in Houston later than two days after the last showing.

THE CLINICAL SIGNIFICANCE OF THE Rh FACTOR

1. Its Importance in Transfusion Reactions

JOSEPH M. HILL, M. D.
AND
SOL HABERMAN, Ph. D.
DALLAS, TEXAS

It is becoming apparent that transfusions cannot be given safely without consideration of the Rh factor. Although the understanding of the four basic blood groups has made blood transfusions a relatively safe procedure, nevertheless occasional serious or even fatal reactions have been known to occur upon administration of correctly typed and crossmatched blood. Most reactions of this type can now be attributed to isoimmunization by the Rh factor.

The term Rh is taken from the Rhesus monkey[7] (Macacus Rhesus), and its relationship to isoimmunization in the human can be explained briefly as follows: If the erythrocytes of a Rhesus monkey (the Rh antigen) are injected into suitable animals, antibodies against Rhesus erythrocytes may be developed in the serum (anti Rh serum). Serum prepared in this manner will agglutinate the cells of 84 per cent of humans. Those whose red cells react in this manner to anti Rhesus serum have been designated as Rh positive and the remainder, with some few exceptions to be noted later, have been called Rh negative. The Rh positive human erythrocytes can behave antigenically in the same manner as the Rhesus monkey cells. This means that Rh positive human red cells transfused into Rh negative donors may result in the production of anti Rh anti-bodies in the serum of the recipient even though both the donor and the recipient are of the same blood group. Subsequent transfusions of Rh positive blood into this recipient may result in serious hemolytic reactions or even death.

In pregnancy Rh isoimmunization may result when the mother is Rh negative and the fetus Rh positive inherited from the Rh positive father. Transfusion to such a mother is particularly dangerous because the anti Rh titer may be high enough to cause a serious or fatal reaction if given Rh positive blood, a possibility that is greatly increased by the fact that the husband if of the same blood group is apt to be chosen as donor unless the possible disastrous consequences are understood. The consequences of isoimmunization to the fetus are discussed in another paper.[3]

From the William Buchanan Blood, Plasma and Serum Center of Baylor University Hospital and the Pathology Department of the Southwestern Medical College, Dallas, Texas.
Aided by a grant from the J. K. Waddy Fund.
Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 21, 1944.

The recognition of the part played by the Rh antigen in intragroup transfusion reactions has been a recent development. The first clear report of the production of immune isoagglutinins following repeated transfusions was made by Landsteiner, Levine and Janes.[6] The irregular agglutinin resulted from repeated transfusions from the same donor. In 1939 Levine and Stetson[15] reported a hemolytic reaction in a mother not previously transfused, who received 500 cc. from the husband after delivery of a macerated fetus. It was noted that only 21 out of 104 prospective donors of the same type were compatible. The reaction was considered due to isoimmunization produced by action of a property in blood or tissues of fetus inherited from father and absent in mother.

The discovery of the Rh factor by Landsteiner and Wiener[7] in 1940 was quickly followed by the report of Wiener and Peters[20] that intra-group transfusion reactions could result from Rh isoimmunization due to prior transfusions of Rh positive blood to Rh negative patients. Levine and Katzin[12] noted that the warm agglutinins they found in isoimmunizations of pregnancy in the one instance tested, corresponded in specificity with the Rh factor. Complications of pregnancy such as abortion, miscarriage, and stillbirths were also correlated with this type of isoimmunization. In detailed reports of cases of pregnancy isoimmunization, Levine, Katzin and Burnham[13] assumed several varieties of isoantibodies resulting from products of conception.

In 1941 Levine and Polayes[14] describing an atypical hemolysin in pregnancy noted that the antibody agglutinated red cells of only 25 per cent of individuals (in the same blood group). Landsteiner and Wiener[8] indicated the inheritance of the Rh agglutinogen as a simple mendelian dominant probably independent of blood group and factors M and N. Their tests showed percentage differences in the number of blood samples agglutinated by anti Rh guinea pig serum and two samples of serum from isoimmunized humans. Burnham[1] pointed out that mothers of erythroblastotic infants could be safely transfused by determining the Rh type and using Rh negative blood usually.

The possibility of multiple varieties or subgroups of the Rh antigen, which were vaguely implied in earlier reports[13, 14, 8], were more clearly suggested by the work of Levine, Burnham, Katzin and Vogel[11] in which three different isoimmune sera were found which agglutinated 87 per cent, 85 per cent and 73 per cent, respectively, of bloods tested for Rh antigen.

The growing complexity of the Rh problem

was further indicated by their statement that patients with blood Rh positive to some sera may nevertheless be isoimmunized like Rh negative individuals. They also reported a case of pregnancy isoimmunization in which the mother's serum contained antibodies which agglutinated Rh negative cells. This apparently was the same case later reported by Javert[5] and again referred to by Levine[9] when he named the agglutinin found in the serum of this case anti-Hr. The term Hr was applied because Levine considered Hr factor allelomorphic with Rh. Recently Race and Taylor[16] obtained a serum from the blood of an Rh positive mother of an erythroblastotic infant which reacted very much like Levine's anti-Hr serum. They found that this serum could be used to test whether an individual was homozygous (RhRh) or heterozygous (Rhrh). On the basis of family studies they believed that if the blood of an Rh positive individual agglutinated with their serum, he was heterozygous.

In a series of remarkable papers, Wiener, *et al*,[17, 19, 21, 22] evolved a classification of 8 Rh sub-groups related to 6 allelomorphic genes. When typed with Rh_1 and Rh_2 anti-sera, only four sub-groups with reactions analogous to the reactions of the standard blood groups to A and B anti-sera are made out. If a third anti-serum, the original anti-Rhesus is used, the four groups divided into eight, with 95 per cent of whites in the first class of four groups and only 5 per cent in the rare second class of four groups.

Several cases of Rh isoimmunization have been observed in connection with the transfusion service of the Buchanan Center and those having transfusion reactions are described in this paper. Erythroblastosis is dealt with primarily in another report.[3]

Case Reports

Case 1.—A white male, aged 46, was admitted to another hospital for transfusions because of bleeding peptic ulcer. The patient had a history of gastric ulcer for 20 years, with the first hemorrhage at 16. He had received a transfusion sixteen years ago. During the present illness he had exhibited tarry stools, nausea and vomiting. He received three transfusions prior to admission to Baylor Hospital. He had reacted to the first transfusion with severe chill and fever, but the second transfusion was without reaction. The third transfusion was followed by such a severe reaction that it was feared the patient might die. There was a severe rigor, marked hematuria and, for a period of twenty-four hours, anuria. When the kidneys again started functioning there was dark bloody-appearing urine showing albumin for four days.

The patient was admitted to Baylor hospital for special study of his transfusion problem because of his continuing need for blood. He was typed 0, Rh negative and given a 20 cc. pilot dose of 0, Rh negative blood to which he promptly reacted with chills and fever reaching a maximum of 101 F. after two hours. Further studies on the patient's blood showed him to be type O, Rh negative, M positive, N negative. His serum showed anti-Rh and anti-N antibodies. The anti-Rh antibodies were of the 70 per cent specificity type. On his third hospital day, 15 Gm. of concentrated plasma were given without reaction at 4:30 p. m., and at 9:45 p. m. a 20 cc. pilot dose of type 0, Rh negative, M positive, N negative blood was given, and in absence of reaction followed one hour later by 500 cc. of same blood. This was followed by a chill and a maximum temperature of 102 F. about two hours later. The next day another 500 cc. of type 0, Rh negative, M positive, N negative blood was started one hour after an uneventful 20 cc. pilot dose. The transfusion was discontinued after 450 cc. because of severe chills and some cyanosis. Fever went to maximum of 105 F. one and one-half hours later and subsided in a few hours. The red cell count increased after each transfusion from 2.19 million on admission to 2.82 million. At the same time the icterus index dropped steadily from 5.6 on admission to 3.8 after the last transfusion. The patient was discharged improved.

Case 2.—A white male, aged 49, was admitted to another hospital with rheumatic heart disease. The patient had five transfusions with reactions to the last three, with hematuria following the fifth transfusion. Rh typing revealed Rh negative, type 0 with antibodies in patient's serum against Rh_1 cells. A transfusion of 500 cc. of Rh negative blood from a brother was uneventful. The patient later died of his heart condition.

Case 3.—A white male, aged 39, was admitted to the hospital because of weakness and shortness of breath and a history of frequent nosebleeds giving rise to anemia recurrently since 1932. The diagnosis was familial telangiectasia. The patient had had three previous transfusions in another city, the last about three years ago. He was given six transfusions in Baylor Hospital. Because of the history of transfusions and the need for multiple administrations of blood the patient was Rh typed and found to be negative. The first transfusion of 325 cc. was without reaction. The next 500 cc. of blood was given, resulting in chills and a temperature rise of 101.8 F. four hours later. On investigation it was found that the patient had not received the Rh negative blood typed for the purpose, but another bottle of blood from a donor having the same name and initial. This blood was Rh positive. The four remaining transfusions were uneventful, and the patient was discharged improved.

Case 4.—A white male was admitted to Baylor Hospital eight days after an accident in which a comminuted fracture of the pelvis was sustained. The patient had had a transfusion in another hospital about five days prior to admission in this hospital. He was given a transfusion on the fifth day after admission to Baylor Hospital and had a severe chill after receiving 250 cc. of blood. An Rh typing was performed on both the patient and the donor from the blood samples which are routinely saved for five days after each transfusion. The patient was type A_1, Rh negative and donor A_1, Rh positive. Blood samples taken from the patient after this transfusion showed a few weak Rh positive clumps, and the serum showed weak anti-Rh^2 antibodies. Another transfusion was given consisting of 430 cc. of Rh negative type A^1 blood. This transfusion, although accompanied by a chill-fever reaction, had no other consequences and did elevate the red cell count.

Case 5.—A white female, age 41, was admitted to Baylor Hospital for treatment of multiple fecal fistulae following a series of operations, the first of which was for benign pelvic tumor. On admission the patient had a hemoglobin of 10.15 Gm. and a red cell count of 3,680,000. Plasma proteins were 4.4 and edema of feet and ankles was noted. During a

prolonged period in the hospital the patient received ten transfusions and many plasma infusions. The patient, type A_2, was given 500 cc. of A_2 blood without reaction. A second transfusion the next day was discontinued at 400 cc. because of chills and rigors. Fever to 100 F. followed four hours later. Four days later the patient developed a hard chill lasting 40 minutes after only 150 cc. of blood. At this time Rh typing was performed and the patient was found to be Rh negative with weak antibodies in the serum which agglutinated Rh_1 and Rh_2 cells. Since then the patient has reecived only A_2, Rh negative blood for seven transfusions with only occasional mild to moderate febrile reactions and has been able to tolerate up to 500 cc. at a time. A resection of a loop of the ileum and side-to-side anastamosis has been performed. The patient is still in the hospital.

CASE 6.—A white male, age 37, had had several admissions to the hospital since 1942. The diagnosis was polyposis of the colon and rectum. Colectomy followed by excision of remaining rectum and anus was performed at the last admission. The patient was discharged walking, March 28, 1944. The patient had one transfusion of 500 cc. of blood in 1942 without reaction. In 1943 he received 450 cc. type 0 blood which was followed by chill, headache and fever to 104 F. seven hours later, and back to normal next day. During another admission about four months later, transfusion of 200 cc. of blood was followed by severe chill and fever up to 104.8 F. two hours later and subsiding slowly to 103.4 F. about three hours after the transfusion. Another transfusion (500 cc.) three days later was followed by a similar severe reaction with temperature of 103.6 F. at two hours and 103 F. at nine hours, after the blood was given. The next transfusion three days after the preceding one, was followed by a similar reaction plus hematuria and jaundice the next day. The icterus index was 15. These last two transfusions did not increase the red blood count on hemoglobin. At this time Rh typing showed the patient to be Rh negative with serum containing anti-Rh_1 antibodies. Five subsequent transfusions of 0, Rh negative blood were uneventful.

DISCUSSION

All of these cases illustrate the importance of the Rh factor in blood transfusions. Some of the cases present peculiar problems. In case 1 we were presented with the problem of a patient who had to have blood because of continuing hemorrhage but who reacted so severely to transfusion as to threaten his life. By the use of Rh negative blood it was possible to proceed with sufficient confidence to continue transfusions as required, even though febrile reactions persisted, until the bleeding ulcer was controlled and the patient was discharged improved. This case was further complicated by the presence of anti-N antibodies whose role in the reaction appears obscure. The persisting febrile reactions in this case even after administration of blood properly matched in respect to Rh and M and N were most likely of pyrogenic type*, especially since the temperature rise and subsidence was quite rapid. Possibly the patient was hypersensitive to pyrogenic substances, as Gee[18] was able to demonstrate in animals. That the Rh negative transfusions were effective and unaccompanied by hemolysis was shown by the rise in hemoglobin and the fall in icterus index.

Case 3 illustrates the fact that Rh typing in no way does away with the need for vigilance in every detail. The confusion of bottles and names made the work in Rh typing of no avail. It will be noted that the febrile reaction was somewhat slow in reaching a peak and receding. This is similar to the response to intravascular hemolysis reported by Yomakami.[23]

Case 4 illustrates the value of saving the pilot tubes from the donor's bottle of blood as well as the samples of blood from the patient. This tube contains the clot from which serum or cell suspensions* can be obtained for any rechecking if unexpected results follow the transfusion. Another point brought out is that some Rh positive clumps may be observed due to the remaining Rh positive cells from the last Rh positive transfusion. The restudy of the donor's blood and the patient's blood before the transfusion explained the reason for such scattered clumps. The demonstration of antibodies against Rh positive cells in vitro is evidence of isoimmunization in the patient. For the proper demonstration of such antibodies it is necessary to have cells from known Rh subtypes available.

Cases 5 and 6 bring out the important role of Rh typing in cases requiring many transfusions over prolonged periods. The contrast between the results with Rh typed blood and those prior to such studies is particularly outstanding. Both cases also demonstrate the gradual building up of antibodies through the receiving of several transfusions, most of which it must be presumed were Rh positive, since 87.5 per cent of the white population at random is positive. The sequence of warning signs is well illustrated also. First, mild to moderate febrile reactions are seen which are very similar to ordinary pyrogenic febrile reactions, but possibly somewhat slower to reach a peak and slower to recede. In more severe reactions this difference becomes more pronounced; headache and cyanosis may appear. Cyanosis may be seen, however, in very severe pyrogenic reactions, also. An important sign which may appear fairly early in a sequence of transfusions is the failure of the procedure to sustain an elevation of hemoglobin and red cell count. Jaundice, hemoglobinuria, and finally anuria are seen in the fully developed picture of the hemolytic reaction.

The giving of Rh positive blood to an Rh negative patient is always a dangerous pro-

*Pyrogenic reactions are reactions due to soluble protein substances, particularly from certain non-pathogenic bacteria of soil type which grow easily in distilled water.

*Cell suspensions can be obtained from clot by penetrating clot with applicator stick. Enough red cells adhere to make a small but adequate amount of erythrocyte suspension for tests.

cedure in the first one or two transfusions because the patient is sensitized to later administration of blood if ever needed, and in later transfusions because of possible severe or fatal consequences. The process leading to such reactions is an isoimmunization resulting from the introduction of an antigen (Rh in red cells) not possessed by the recipient. The recipient responds to this foreign antigen by producing antibodies with agglutinating and hemolysing action against Rh positive cells. This mechanism is similar basically to any other antigen antibody reaction in that (1) the antigen is foreign, not possessed by recipient, (2) the titer increases with the repeated antigenic stimulus, (3) the antibodies diminish in concentration if a long period elapses after the last such stimulus, (4) the individual remains sensitized and can very quickly again produce a high antibody titer with minimal antigenic stimulation (one transfusion may so resensitize), the so-called amnestic reaction. The last point has been emphasized by Levine.[10]

The reaction produced when Rh positive blood is given to an isoimmunized patient is a hemolytic one with or without agglutination as an initial step. The exact manner in which the hemolytic reaction causes anuria and death is still somewhat obscure, but a shock-like condition with drop in blood pressure may be one factor adversely affecting the kidney. The early administration of any of the shock combating fluids such as plasma or Rh negative blood is probably the most effective measure. Concentrated agglutinin-free plasma is especially convenient and safe.[4]

RH SUBGROUPS

The further subdivision of the Rh factor into subgroups introduces new complications but appears to be of clinical importance because a small proportion of Rh positive people may be isoimmunized by transfusion with an Rh subtype not present in their own red cells. This Rh sub-typing has been possible as the result of finding human Rh antisera of different specificities in cases of isoimmunization, mostly from mothers of erythroblastotic infants. Some such sera may agglutinate 87 per cent of people (whites) as compared with antisera prepared from the injection of Rhesus cells into animals (84 per cent). In some cases the human antisera may agglutinate a much smaller percentage, (73 per cent, 35 per cent). By use of selected antisera of proper specificity Wiener, *et al*[22] have proposed eight human subtypes related to the Rh antigen. These subtypes are inherited through paired combinations of six allelomorphic genes designated Rh_1, Rh_2, Rh, Rh′, Rh″ and rh. Rh negative individuals must be homozygous, rh rh, since this gene is considered to be recessive. The eight subtypes can be recognized by means of three differential antisera, as indicated in Table 1, after Wiener, *et al.*[22]

TABLE 1

	Anti-Rh_1	Anti-Rh_2	Anti-(Rhesus)		Anti-Rh_1	Anti-Rh_2	Anti-Rh
Rh_1 Rh_2	Pos.	Pos.	Pos.	Rh′ Rh″	Pos.	Pos.	Neg.
Rh_1	Pos.	Neg.	Pos.	Rh′	Pos.	Neg.	Neg.
Rh_2	Neg.	Pos.	Pos.	Rh″	Neg.	Pos.	Neg.
Rh Neg.	Neg.	Neg.	Neg.	Rh	Neg.	Neg.	Pos.

It will be noted that if the third column (anti Rhesus serum) were omitted the two groups would be identical, with a scheme similar to the regular blood groups. Wiener, *et al*,[22] state that 95 per cent of Rh positive individuals fall in the left hand group, and 5 per cent in the right. It should be noted that subgroup Rh is used to designate those whose cells react only with anti-Rhesus serum and should not be confused with the broad general designation of Rh positive. Subgroup Rh constitutes only 2.5 per cent of the general population.

Because of the rarity of some of the subgroups it will require the study of a very large series of cases to test all the possible combinations that will isoimmunize. This is important because it will determine who may give blood to whom safely with reference to Rh subtypes. The Wiener classification might serve as a guide to such studies; however, it appears that there may be some as yet unexplained discrepancies which require clarification.

Isoimmunization of individuals of one Rh subtype by red cells of another subtype is apparently very rare. Such cases have been reported by Levine, *et al*,[11] and Wiener.[18] Furthermore Levine[9] and Race and Taylor[16] have obtained antisera from mothers of erythroblastotic infants, which agglutinate all Rh negative blood and some Rh positives. In these cases the Rh positive mother was isoimmunized by an Rh negative fetus. Levine termed their serum anti-Hr. Such sera apparently are capable of detecting the antigen rh determined by the recessive gene rh. Both the sera of Levine, and Race and Taylor gave positive reactions with all Rh negatives (i. e., homozygous rh rh) but showed different percentages of reaction with Rh positive bloods. Race and Taylor believe that such reactions occur only with Rh positive bloods determined by heterozygous genes, Rh rh.

This suggests that Rh negative bloods (genotype rh rh) may be alternatively designated as Hr positive. The difference in percentage of reaction between the Levine, and Race and Taylor serum may be due to subgroups in the Hr antigen, or racial differ-

ence in incidence of the Hr antigen in England and the United States.

More complete understanding of the Rh antigens including the place of anti-Hr sera and the clinical importance of the subgroups can only be obtained by the study of many antisera obtained from large series of cases of transfusion and pregnancy isoimmunization. Such studies are now in progress at William Buchanan Blood, Plasma and Serum Center.

Certain fairly definite conclusions can now be made in respect to the clinical importance of the Rh antigens in transfusions. All patients on the obstetrical service whether prepartum or postpartum should be Rh typed before transfusion and only Rh negative blood given to Rh negative women. All patients who have received previous transfusions and those to whom multiple transfusions are to be given should also be Rh typed and if Rh negative given only Rh negative blood. In the above mentioned situation, the Rh typing has been made routine on the transfusion service of the Buchanan Center.

One may ask whether Rh typing should be routine prior to all transfusions. We believe this would be desirable since it would avoid isoimmunization by transfusion altogether and would increase the safety of the procedure. When adequate Rh typing sera becomes available, this will be possible. Subtyping also appears to be a necessary part of our Rh technique, although the application of the subtypes will be of value only in rare instances. At present the best sera for Rh group typing and subtyping is obtained from human sources, usually mothers of erythroblastotic infants. Large blood banks are ideally situated to render the additional services of identifying and preparing Rh group and subgroup sera, of determining Rh type and subtype of patients and of making available the blood of proper Rh reaction.

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ABSTRACT OF DISCUSSION

Dr. May Owen, Fort Worth: I should like to preface any remarks that I shall make by expressing appreciation to Dr. Hill for his generous review of the literature and excellent discussion of this subject with case reports.

The recognition of the Rh factor has been an important addition to our armamentarium in the selection of the proper blood donors for a given recipient. Unfortunately, the Rh factor does not solve the entire problem of transfusion reactions and, as Dr. Hill has said, there is the ever present need for vigilance in every detail.

Blood typing, as it is carried out in the average laboratory, is a rather simple procedure and the real importance of the test with the potential dangers are not always fully appreciated. Dr. Hill's paper emphasizes the impending serious reactions that may be encountered in blood transfusions from a failure to appreciate and interpret the minor details of this procedure.

It is considered good practice, in addition to blood grouping, to examine the blood of recipients for the Rh factor; especially does this apply to pregnant and recently pregnant women. Fortunate is the hospital that has a list of Rh negative donors, particularly, if there are 0Rh negative donors that can be used in emergencies and for babies born of Rh negative mothers.

If all patients receiving blood transfusions were carefully observed, as Dr. Hill and his associates have done in the cases reported, no doubt more reactions would be recognized and probably an occasional death would be explained.

In closing, I wish that Dr. Hill would comment more on the practical use of human anti Rh sera for grouping; also, the importance of determining the M and N factors in the typing of blood for transfusions.

Dr. Will S. Horn, Fort Worth: About twenty years ago I made some clinical experiments on the cause of vomiting in pregnancy. It was our thesis that intoxication causing the hyperemesis was due to leakage of blood from the fetus through the placenta into the mother. One hundred per cent of the infants tested postpartum showed blood types different to that of the mother. Furthermore, the vomiting in these cases had been controlled or alleviated by the intravenous injection of small amounts of other than the mother's type.

It interests me to hear Dr. Hill's discussion of the Rh factor and brings up the question as to whether or not this may be a cause of vomiting of pregnancy as primary or in addition to protein intoxication caused by conflicting differences in blood types of the mother and fetus. I should like to ask Dr. Hill whether or not he has made any observation in regard to Rh factor in this respect.

Dr. John J. Andujar, Fort Worth: There has been considerable confusion as to the necessity for typing donors for the Rh factor when cross matching has been done by the test tube method at 37 degrees Centigrade. While it is true that Rh incompatibility will occasionally be discovered by test tube cross matching for twenty to thirty minutes at body temperature, still it can not be too strongly emphasized that this is not always the case. In one tragic Rh fatality in our experience the donor and recipient cross matched by the test tube method, not only at body temperature but, also, at room temperature and at 6 degrees Centigrade. I should appreciate Dr. Hill's comment on the adequacy or inadequacy of cross matching to determine Rh incompatibility.

THE CLINICAL SIGNIFICANCE OF THE Rh FACTOR

II. Its Importance in Erythroblastosis Fetalis

SOL HABERMAN, Ph. D.
AND
J. M. HILL, M. D.
DALLAS, TEXAS

In 1932, Diamond, Blackfan and Baty[1] suggested that hydrops fetalis, icterus gravis and congenital anemia are different clinical entities dependent on the same etiology. It was shown that each symptom-complex is preceded by excessive blood destruction and a compensatory hematopoiesis. Since then these conditions have been grouped under the general term "erythroblastosis." However, the etiology of this disease remained a matter of conjecture until Levine, *et al*[5, 6, 12, 13] associated the Rh antigen of Landsteiner and Wiener[4] with transfusion accidents of pregnancy. It was found by Levine and Katzin[11] that these reactions often occur at the first transfusion, and furthermore, those mothers suffering such difficulties were Rh negative and had anti-Rh antibodies due to isoimmunization by Rh positive fetal blood. These findings served as the basis for the theory of the pathogenesis of erythroblastosis, which may be summed up as follows:

The Rh factor is an antigen of erythrocytes that is present in 87 per cent (Rh positive) of the white population and absent in 13 per cent (Rh negative). It has been found that if an Rh negative individual is repeatedly given Rh positive blood, antibodies develop against the Rh antigen. Eventually this isoimmunization leads to intragroup transfusion accidents. In approximately 90 per cent of the cases of erythroblastosis, the father is Rh positive, the mother Rh negative and the fetus Rh positive. The Rh factor is genetically inherited as a simple mendelian dominant by the allelomorphic genes Rh and rh. These genes are carried in pairs in the homozygous (Rh Rh or rh rh) or heterozygous (Rh rh) form. In that the Rh gene is dominant over rh, individuals having the genic formula Rh rh and Rh Rh would be serologically Rh positive. Those possessing the recessive genes as rh rh would be Rh negative. In a mating between an Rh positive father and an Rh negative mother, the child may inherit the Rh antigen from the father, thereby being Rh positive. From our present knowledge it seems that this antigen is limited to the erythrocytes, and consequently it is assumed that some break occurs in the fetal-maternal placental barrier. As a result of this, some fetal erythrocytes enter the maternal circulation. Due to the presence of the Rh antigen, these red blood cells stimulate the mother's reticulo-endothelial system to produce antibodies against the Rh antigen. The antibodies are then able to enter the fetal circulation by way of the placenta and attack the fetal erythrocytes and hemopoietic system. The resultant damage by the presence of these atypical antibodies evidences itself in erythroblastosis.

This disease of the newborn has shown a definite familial incidence. In most matings resulting in cases of this sort it has been found that the first child is frequently normal. However, subsequent pregnancies often terminate in erythroblastotic infants. In some matings, the erythroblastosis appears only sporadically, often skipping several pregnancies before reappearing. This difference in occurrence can be explained on the basis of the Landsteiner and Wiener[4, 17] theory of Rh inheritance. This can be diagramed in simple form as follows (after Levine):[8]

MATINGS OF RH POSITIVE FATHER AND RH NEGATIVE MOTHER

Homozygous father	Rh Rh	Rh negative mother rh rh (Rh positive) offspring
Genes in sperm and egg	Rh	rh—100% Rh rh offspring
Heterozygous father	Rh rh	Rh negative mother rh rh
Genes in sperm and egg	Rh	rh—50% Rh rh (Rh positive) offspring
	or	
	rh	rh 50%—rh rh (Rh negative) offspring

In the general population, if one considers that 87 per cent are Rh positive and 13 per cent are Rh negative, 5.6 per cent of all matings will have an Rh positive husband

From the William Buchanan Blood, Plasma and Serum Center of Baylor University Hospital and the Department of Pathology of the Southwestern Medical College, Dallas, Texas.
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and an Rh negative wife. In spite of this incidence of proper matings, Javert[3] has reported that only 1 out of every 438 deliveries yields an erythroblastotic infant. Levine[7] explains this low incidence on the basis of the present tendency toward small families and the difference in immunizing response among Rh negative mothers. Wiener and Wexler[20] explain this low incidence by stating that only 2 per cent to 5 per cent of all individuals respond readily to the introduction of Rh and other foreign isoantigens by the production of specific antibodies. In the first pregnancy, the child escapes the clinical disease because the mother has never been sensitized to Rh. Once she has been sensitized, each subsequent pregnancy by an Rh positive fetus stimulates rapid production of Rh antibodies (an amnestic reaction).

In matings that have resulted in erythroblastosis, the question arises as to the probabilities of having future pregnancies that would yield normal children. To answer this practical question Levine[7] has suggested that if one child in the family can be shown to be Rh negative, the father is heterozygous. Under these conditions, the probabilities for normal children is 50 per cent. If all the surviving children are Rh positive, then the father is homozygous and the probability for normal children is unfavorable. Another test for heterozygosity of the father has been offered by Race and Taylor.[14] They reported a case of erythroblastosis in which the reverse Rh conditions existed. The father was Rh negative and the mother Rh positive. The serum obtained from the mother contained an antibody that agglutinated all Rh negative and some Rh positive bloods. This serum is similar to the anti-Hr sera found by Levine, *et al.*[7, 13] Using this serum, Race and Taylor[14] demonstrated that Rh negative (rh rh) and Rh positive heterozygous (Rh rh) erythrocytes are agglutinated, while Rh positive homozygous (Rh Rh) erythrocytes are not. This test can be used to predict the probability of normal children.

The mechanism by which mothers are immunized by fetal erythrocytes has not been satisfactorily clarified. Levine and Katzin[10] have shown that the Rh antigen is restricted to the erythrocytes and not found in saliva, sperm cells, or seminal fluid. It is believed that fetal erythrocytes make their way into the maternal circulation through minute breaks in the fetal villi. This view is supported by the finding of synctiotrophoblast cells in maternal lungs on autopsy examinations of women dying during the latter stages of pregnancy. From a clinical viewpoint, erythroblastosis is a disease of the third trimester of pregnancy. Some investigators have laid particular stress on the possibility of placental hematomata and premature separations being the source of transfer of fetal blood to the maternal circulation. Levine[9] has shown that minute amounts of heterospecific blood given daily to rabbits over a period of two weeks could result in the production of appreciable titers of antibodies against these erythrocytes. The fact that anti-Rh antibodies are found in maternal blood in erythroblastosis is proof that the Rh antigen gains access to the maternal circulation.

As has been discussed in our previous paper,[2] the Rh antigen may be broken into sub-types. The work of Levine, *et al*,[13] and particularly Wiener, *et al*,[15, 16, 18, 19] demostrated that many varieties of Rh antigen exist. On the basis of a statistical analysis of families, Wiener, *et al*, have been able to form a genic theory of the Rh blood types and have clarified their inheritance. It has been shown by these workers that sera from cases of erythroblastosis do not have the same specificity. The reactivity of these sera is given in table 1.

TABLE 1

Percentage of blood samples (whites) agglutinated	Type of serum
35%	anti Rh_2
73%	anti Rh_1
84%	anti Rh
84.5%	anti Rh″
87%	anti Rh‘

The type of antibodies found in maternal blood would be dependent on the Rh antigen possessed by the fetus and the ability of the maternal reticulo-endothelial system to respond to its stimulus. In isoimmunization by blood transfusions, the Rh antibody found would depend on the Rh antigen that was present in the blood of the donor. Although anti-Rh sera are frequently observed in mothers bearing erythroblastotic infants, only a small percentage of such sera are of sufficient potency to allow their usage for tests. Wiener has found that many of these sera are of the anti-Rh′ type.

By means of anti-Rh_1, anti-Rh_2 and anti-Rh sera, Wiener, Sonn and Belkin[19] were able to divide the antigens into eight types (phenotypes), which are genetically determined by the six allelomorphic genes Rh_1, Rh_2, Rh′, Rh″, Rh and rh. This phase of the heredity of the Rh types has been discussed in our previous paper.

From a review of our present knowledge there is no prophylactic measure that can be taken to prevent a pregnant woman from bearing an erythroblastotic infant. However, Wiener and Wexler[20] have shown that such infants, if born alive, should be given Rh negative blood. Also, they found that

breast-feeding by the mother may be a further source of anti-Rh antibodies to the child. In our maternity service, infants having erythroblastosis are given Rh negative transfusions and fed by formulae. Since this regime was started, eight erythroblastoses have occurred with no fatalities.

CASE REPORTS

CASE 1.—A white female, age 31, had had four previous pregnancies, the first of which resulted in a normal baby, the second was stillborn, the third was normal, and the fourth infant had erythroblastosis of icterus gravis type. The baby from the fifth pregnancy (the present case) was born with erythroblastosis of the icterus gravis type, with the red blood count at 4,000,000 cells per cm. At three weeks of age the child was brought to our attention for study. A marked jaundice still persisted and the erythrocytes had dropped to 2,000,000. The liver and spleen were enlarged, and the general condition of the patient was unfavorable. The Rh studies done at this time revealed that the mother was Rh negative and still possessed antibodies against Rh positive cells. The titers were 1/512 against Rh_1 and 1/256 against Rh_2. Two transfusions of Rh negative blood, 100 cc. each, were given and the child was taken off breast feeding. At about 5 weeks of age the child was sent home in good condition.

CASE 2.—The patient, a white female, age 29, had had one previous pregnancy which resulted in a normal child. The second pregnancy resulted in an erythroblastosis of the icterus gravis type accompanied by a severe hemolytic anemia. At birth the child had an erythrocyte count of 1,007,600 per cm., with 1 erythroblast and 19 normoblasts. The white count was 107,600, with 82 per cent total polymorphonuclear leukocytes, showing 12 per cent myelocytes, 10 young forms, 23 per cent bands and 37 per cent segmented forms. At this time Rh studies revealed that the mother was Rh negative with antibodies of the anti-Rh′ type with a titer of 1/1280. Both the father and the baby were Rh positive. The baby was taken off breast feeding, and transfusions with Rh negative blood were started six hours after birth. The first transfusion of 75 cc. of Rh negative blood brought about a remarkable change in the blood picture of the infant. Twenty-four hours later the erythrocyte count rose to 2,870,000, with only 3 normoblasts, and the white count dropped to 3,800, with a differential of 80 per cent total polymorphonuclear leukocytes, 10 myelocytes, 5 young forms, 14 bands, and 51 segmented leukocytes. On the second day another transfusion of 85 cc. of Rh negative blood was given. This brought the erythrocyte count to 3,990,000, and the white blood cell count to 8,700, with only 7 myelocytes and 2 young forms present. On the third day only 10 cc. of Rh negative blood was given and the erythrocyte count dropped to 2,610,000. On the sixth day, 75 cc. of Rh negative blood was given. This raised the erythrocyte count from 2,610,000 to 3,010,000. On the thirteenth day the erythrocyte count had dropped to 2,310,000 which was raised to 2,520,000 by a 75 cc. transfusion. No further transfusions were given in that the hemolytic reaction subsided and the child showed signs of recovery. On the twenty-second day the child showed an erythrocyte count of 3,950,000 and very little icterus discernible in the skin. The child was then discharged from the hospital.

CASE 3.—The patient, a white female, age 37, had had one previous pregnancy and delivered a normal child. The second pregnancy resulted in a child that appeared normal for twenty-four hours, at which time a sudden icterus and hemolytic anemia developed. Rh typing showed the mother was Rh negative and the father and child were Rh positive. The mother's serum contained antibodies against the Rh_1 and Rh_2 antigens. The baby was given a 75 cc. transfusion of Rh negative blood, which raised the hemoglobin (9.5 Gm. twenty-four hours after birth) from 8.55 Gm. to 10.8 Gm. This was apparently a case of mild icterus gravis, because the infant began to show steady improvement after the transfusion, and was discharged on the eleventh day in good condition.

CASE 4.—The patient, a white female, age 28, had had four pregnancies, of which the first resulted in a normal child, the second ended in a spontaneous abortion at 5 months, the third died in utero several days before term and was delivered as a hydrops, and the fourth ended in a spontaneous abortion at 6 months, yielding a macerated fetus. Two days after delivery Rh studies were made. The mother was Rh negative and the father was Rh positive. During the fourth pregnancy the mother was tested periodicaly for anti-Rh antibodies and none were found in her serum by the fifth month. Two days after delivery of the macerated fetus her serum showed antibodies against Rh_1 and Rh_2 which had a titer of 1/4.

CASE 5.—The patient, a white female, age 25, had had two previous pregnancies that resulted in normal children. At the completion of her third pregnancy term, a child of the icterus gravis type was delivered. Rh tests showed that the mother was Rh negative and the child Rh positive. Her serum contained antibodies against Rh_1 and Rh_2 antigens. At the time of delivery the child had 17.65 Gm. hemoglobin and 5,740,000 red blood cells, with 26 erythroblasts, 41 normoblasts and much polychromatophilia. In spite of the high erythrocyte count, the baby was given a transfusion of 75 cc. of Rh negative blood and fed by formulae. The rationale for this was based on the number of erythroblasts, normoblasts and amount of polychromatophilia present. It was judged that this evidence of increased blood production was a reflection of excessive red cell destruction by hemolysis. The count rose to 18.14 Gm. hemoglobin, with 6,050,000 red blood cells, and there were only 7 erythroblasts and 8 normoblasts present. On the next day another 75 cc. transfusion of Rh negative blood was given. The count rose to 18.14 Gm. hemoglobin, and 6,010,000 red blood cells, with only 2 erythroblasts and 6 normoblasts. After this increase in the total red cell count, with the marked drop in erythroblasts and normoblasts and the disappearance of the polychromatophilia, it was decided that further transfusions were unnecessary. Two days later the hemoglobin was 21.9 Gm. with 7,310,000 red blood cells, and no abnormal red cells were present. On the eighth day after birth the icterus had diminished considerably, the hemoglobin was 17.65 Gm. and the red blood cell count was 5,950,000. The child continued to show improvement and was discharged.

CASE 6.—A white female, age 27, had had two previous pregnancies. The first resulted in a normal child and the second was born with erythroblastosis. The present pregnancy was brought to our attention when the patient was at four months. At that time it was found that the father was Rh positive and the mother Rh negative. Her serum did not show anti-Rh antibodies. Several days before delivery she was examined again, at which time her serum showed an anti-Rh′ antibody containing a high titer of anti-Rh. The father was tested with anti-Rh_1, anti-Rh, anti-Rh_2, and anti-Hr sera and was found to be Rh_1 with no Hr antigen. On the basis of these tests and the fact that the mother was type O and the father type A, we were able to predict

that the child would be either an O Rh_1 or an A Rh_1. With this in mind, type O Rh negative and type A Rh negative bloods were prepared in advance for the expected erythroblastotic infant. On delivery the child was found to be an A Rh_1 Hr. A transfusion of 75 cc. was given on the first day. Twelve hours after birth the child showed a small amount of icterus in the skin. At birth the erythrocyte count was 4,130,000 cm., with 15.3 Gm. of hemoglobin. Examination of the red cells showed 28 erythroblasts and 8 normoblasts. The white count was 27,800, with 4 young forms, 20 bands, and 57 segmented forms.

At this time the child began to show a severe icterus. On the second day a 75 cc. transfusion was given. Examination of the patient's blood showed a hemoglobin of 17.75 Gm. with 5,100,000 erythrocytes. The abnormal red cells had dropped to 15 erythroblasts and 7 normoblasts. The white count revealed a normal differential, with 15,150 leukocytes. The next day, the patient's erythrocyte count dropped to 3,530,000, with 10.8 Gm. of hemoglobin. On the fourth day an 80 cc. transfusion was given. The next day the erythrocyte count was 4,490,000, with 12.65 Gm. hemoglobin and no abnormal red cell forms. The icterus began to disappear, and the patient steadily improved.

EXPERIMENTAL STUDIES

All Rh tests were made with anti-Rh serum, using the method of Landsteiner and Wiener,[4] followed by one minute of centrifugation at 500 R. P. M. The final readings were made after centrifugation. Sub-group tests were done with the anti-Rh, anti-Rh_2 and anti-Rh_1 sera. The anti-Hr serum was supplied by Dr. Philip Levine.

Sub-group studies on Rh and the studies on the Hr antigen were begun at the time Case 5 was brought to our attention. The family in this case was analysed for these antigens and their inheritance in this family. The results are presented in table 2.

TABLE 2

	Type	Anti-Hr	Anti-Rh_1	Anti-Rh_2	Anti-Rh	Type
Mother	0	pos.	neg.	neg.	neg.	HrHr
Father	0	neg.	pos.	neg.	pos.	Rh_1
Child 1	0	pos.	pos.	neg.	pos.	Rh_1Hr
Child 2	0	neg.	pos.	neg.	pos.	Rh_1
Child 3	0	pos.	pos.	neg.	pos.	Rh_1Hr

From this family study it can be seen that the father was probably homozygous Rh positive in that his erythrocytes failed to agglutinate in anti-Hr serum. The mother was Rh negative and Hr positive. Two of the children gave positive reactions to the anti-Hr serum while one did not. All of the children inherited the Rh_1 from the father. In the case of the second child, it is possible that the Hr was present, but the anti-Hr serum supplied by Dr. Philip Levine did not have the right sub-group Hr antibody. The report by Race and Taylor indicates that their serum agglutinated approximately 80 per cent of the population while that of Levine only agglutinates 50 per cent. In view of this, it may be surmised that the Hr antigen is also composed of sub-groups. In this mother the Hr antigen might have been present as two sub-groups Hr_1, Hr_2 with the Hr_1 being inherited by two children, the first and third, and Hr_2 being inherited by the second child. This condition would be analogous to the inheritance of antigens Rh_1 Rh_2.

In Case 6 a complete study was made on the Rh condition, using both maternal and child cord blood. The mother's serum was shown to be of the anti-Rh′ type. When the child's cord blood was studied the serum was found to contain only anti Rh_1 and was equivalent to a 73 per cent serum.

The cells obtained from the umbilical cord were washed in cold saline. Then 1 cc. of saline was mixed with .25 cc. of washed baby cells and placed in a water bath at 56 C. for five minutes. The cells were removed by centrifugation and the saline eluate was tested for antibodies. The results are presented in table 3.

TABLE 3

Rh Cells used for test	Mother's serum	Child's cord serum	Saline used to wash child's cell	Eluent from child's blood cells
Rh neg.	neg.	neg.	neg.	neg.
Rh_1	pos.	pos.	neg.	pos.
Rh_2	pos.	neg.	neg.	pos.

This shows that the maternal antibodies were passed through the placenta and the Rh antibodies were absorbed in the fetal cells. When the antibodies were eluated from the child's cells, an anti-Rh antibody was demonstrable.

The colostrum of the mother was collected two hours after the birth of the child. The fat was removed by centrifugation and the "whey" was tested for anti-Rh. It was found that this material had antibodies for the father and child's erythrocytes and, also, agglutinated Rh_1 and Rh_2 erythrocytes. The above observations in Case 6 give a complete picture of the action and transmission of the anti-Rh antibody.

DISCUSSION OF RESULTS

It seems evident that erythroblastosis is a disease acquired by the fetus as a result of isoimmunization of the Rh negative mother by the Rh positive antigen of the fetal erythrocytes. The resultant destruction of fetal blood and hemopoeitic tissue by absorbed antibodies is the basis for the disease. In icterus gravis and anemia of the newborn, the symptoms developed are similar to those seen in hemolytic transfusion accidents and hemolytic anemia. The picture is one of sudden blood destruction which may lead to hemolytic crisis and sudden death by anoxia. The treatment for this condition is the ad-

ministration of proper blood transfusion at the earliest opportunity. In that the Rh antibody is the etiological factor in 90 per cent of the cases, Rh negative blood should be used. The mother's blood, although Rh negative should not be used because it contains the anti-Rh factor, and transfusions with this blood add more of the antibody that is producing the disease in the infant. The father's blood, although Rh positive as is the infant's, should be avoided because it is susceptible to the same hemolysis that affects the infant's erythrocytes. The proper transfusion to be administered is compatible Rh negative blood other than that from the mother. By this method the infant receives erythrocytes that will not be injured by the anti-Rh factor. As an emergency measure, type O Rh negative donors should be available for transfusion in cases where the proper Rh negative O, A, and B types are not available.

It is demonstrated from our studies that antibodies from the mother are transmitted to the infant by way of the colostrum.[21] Consequently, to avoid adding more antibodies to those already damaging the fetal erythrocytes, the infant suffering from erythroblastosis should not be breast-fed. In Case 3, the child was breast-fed and continued to show symptoms such as jaundice, enlarged spleen and liver, and anemia. When the child was administered Rh negative transfusions and placed on a formula diet, recovery from the disease began. In Case 6, anti-Rh_1 antibodies were demonstrable in the colostrum several hours after the birth of the child.

In Case 2, it would appear that the child was suffering from severe effects of erythroblastosis. As a consequence, the red blood cell count was observed daily and the transfusion regime was based on the child's ability to maintain its own blood cell supply without heavy demand on the erythropoietic system. A total of 320 cc. of Rh negative blood was given in five transfusions over a period of thirteen days. After the thirteenth day the hemolytic action ceased and the child was able to produce sufficient red cells to maintain an adequate erythrocyte count.

Case 3 shows a child that did not have the clinical symptoms of icterus gravis until twenty-four hours after birth. The case was not severe and a single transfusion was sufficient to arrest the hemolysis of the child's erythrocytes.

In Case 4 the mother had two spontaneous abortions, one of an apparently normal fetus at 5 months, and the second a possible hydrops at 6 months. Repeated studies on the mother's serum up to the fifth month of pregnancy failed to reveal anti-Rh antibodies. However, two days after the abortion, tests revealed antibodies. This would indicate that the isoimmunization must have taken place in the fifth and sixth months. Such findings support the theory that erythroblastosis is a disease of the latter months of pregnancy. A similar production of anti-Rh antibodies in the last trimester of pregnancy is seen in Case 6.

Case 5 is of particular interest in that the family was studied for both the Hr and the Rh factors. In view of the studies using the Levine anti-Hr, the position of this antigen becomes increasingly clear. Levine[8] proposed that the Hr antigen may be genetically related to the Rh and that this relationship was one of the allelomorphism, analogous to the genetic relationship of the A and B blood factors. The results of Race and Taylor show that such an antiserum may be used to detect heterozygosity in the erythrocytes of fathers of erythroblastotic infants. These findings imply that the Hr antigen is identical with the recessive rh of Wiener and Lansteiner.[4, 17] In our investigations it was found that the rh could be detected in a majority of instances by the reaction to the Levine anti-Rh serum. As a result, it is believed that the Hr is composed of sub-groups analogous to those found in the Rh antigen, and that the recessive rh is detectable by anti-Hr serum containing antibodies against the sub-groups.

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ABSTRACT OF DISCUSSION

Dr. Guy L. Hacker, Dallas: Dr. Haberman has made an extensive study of the Rh factor and its effects on the human being. He is to be congratulated for his stimulating presentation.

It is a source of satisfaction to practicing physicians in Dallas and surrounding communities to know that they have an excellent blood bank and well-equipped laboratory at their disposal. The blood bank, under the capable supervision of Dr. Joseph Hill, has made possible such studies as this. Since potent anti-sera is difficult to obtain, it has been stressed by most workers that it is preferable to have one large central unit in each community to do these determinations.

Dr. Haberman has emphasized several practical points in his paper that the practicing physician should remember:

1. Ninety per cent of all intra-group transfusion accidents following repeated transfusions occur in Rh-individuals. Since 13 per cent of all pediatric patients are Rh—, some will be immunized by repeated transfusions of Rh+ blood, with resulting severe reactions. It is apparent that Rh determinations should be done on all patients requiring repeated transfusions. Each hospital should have a list of Rh donors.

2. The development of the anti-Rh agglutinins can be suspected in a patient requiring several transfusions by: (a) poor response to transfusions; (b) failure of the hemoglobin to rise; (c) development of hemolytic jaundice or the more serious signs of hemolysis.

3. Mothers of infants with erythroblastosis, requiring blood transfusions, should be given only Rh— blood, since most of them have anti-Rh agglutinins which may result in violent hemolytic reactions or fatal anuria.

4. Early diagnosis and treatment of infants with erythroblastosis is important since hemolysis may be rapid and severe. One is justified in giving transfusions to suspected infants even before clinical or blood changes occur. Multiple small transfusions of Rh— blood should be given until the active hemolytic process has subsided. The transfused compatible blood should survive in the circulation three or four months. It is important not to use the mother's blood due to the presence of the anti-Rh factor. Affected babies should not be breast-fed since it has been shown that antibodies are present in the breast milk. Before our knowledge of the Rh factor a large percentage of babies with erythroblastosis died. The patients in the eight cases reported by Dr. Haberman have all survived.

5. The prognosis of future pregnancies of mothers of infants with erythroblastosis may be made on the basis of Rh tests. If one of the surviving children is Rh–, it proves the father is heterozygous, so that there is a 50 per cent chance for a Rh– offspring.

The reports concerning the Rh factor has revealed that our conception of blood grouping needs further and intensive study, leading to possible revision. If the results already obtained with the use of Rh– blood are consistently repeated, we shall have the means of saving one in 400 infants who have previously died from this condition.

I would like to ask Dr. Haberman the possible importance of the Hr factor of Levine and its relation to the Rh factor. I would also like to ask the importance of following the erythroblast and normoblast count as well as the hemoglobin and red blood count as an index of transfusion treatment in these cases.

Dr. Joseph Hill, Dallas: I should like to make some further comments in regard to the questions asked concerning the Rh factor. We believe that it is worth while to modify the crossmatching technique to include incubation at 37.5 C. for 15 minutes, using the test tube technique as has been recommended by Levine. Such crossmatches, however, should not be substituted for the Rh typing and subtypings because, in some instances, antibodies cannot be demonstrated in the mother's serum even though she is isoimmunized and will react strongly to Rh positive blood transfusions. Possibly her antibodies are retained within the reticulo-endothelial cells or absorbed. When, as a result of a transfusion of Rh positive blood to an isoimmunized individual, a severe hemolytic reaction results, the question of treatment of anuria comes up. The causes of anuria under these circumstances is not entirely clear. Two ideas are generally held: one is that the kidney is damaged directly by the products of hemolysis, and, two, that the kidney function is depressed, caused by a shock-like condition. On the basis of the latter idea, it seems logical to try to sustain blood volume and blood pressure so that the kidneys will function properly. We feel that the administration of concentrated plasma can safely and effectively accomplish this. A very definite problem arises out of this work, that is, the necessity of making Rh negative blood of different types available for use. We are working with the problem now, and hope to make such blood available from the William Buchanan Blood, Plasma and Serum Center.

Dr. Gladys Fashena, Dallas: I should like to mention the fact that the Rh factor is important in pediatrics, not only in diagnosis and treatment of icterus gravus neonatorum, but also from the standpoint of transfusion reaction. We have recently had a child at Children's Medical Center who had to receive several transfusions because of a chronic osteomyelitis. This child had numerous transfusions from the same donor, to which he had no reaction, and then he received one to which he had a slight febrile reaction. We didn't pay much attention to this, very stupidly, and proceeded to use the same donor for another transfusion. This time the child had a severe reaction with high fever, shaking chills, hemoglobinuria and a very high icteric index; in fact the child almost died. A study of this child's blood revealed that he was Rh negative and that his donor was Rh positive. Agglutinins could be demonstrated in the blood of the patient, showing that he had built up antibodies to the Rh positive blood which had been administered to him in the course of the transfusions. This child has subsequently received several transfusions from Rh negative donors with no reactions.

Dr. Don W. Freeman, Denison: I was greatly interested in Dr. Haberman's paper. I should like to ask Dr. Haberman if hydrops of the fetus and anemia of the newborn are included in the classification of erythroblastosis as used in this paper, or if the Rh factor is related only to icterus gravis?

One does not acquire a sunburn through the windows of an automobile because the laminated glass is opaque to the ultraviolet rays of the sun, *The Journal of the American Medical Association* advises in answer to an inquiry.

PRACTICAL APPLICATIONS OF THE Rh FACTOR TO OBSTETRICS

JOHN J. ANDUJAR, M. D., F. A. C. P.
FORT WORTH, TEXAS

Definition.—The Rh factor is an inclusive term applied to a recently identified group of hemolysis-producing agents present in the red blood cells of about 85 per cent of humans and capable of creating varying amounts of antibodies in the plasma of the other 15 per cent. It ranks in importance with the other known blood factors (A and its subgroups, B, M, N and P.)

History.—Paul Ehrlich[1] at the turn of this century first recorded the fact that humans could be immunized against the blood of other humans. This "intraspecies isoimmunization" challenged investigators increasingly, for it appeared unrelated to the ordinary blood groups AB, A, B and O. Only four years ago the late Karl Landsteiner[4] and his associate Alexander Wiener first described the long sought factor. Since they produced it by injecting ordinary Rhesus monkey blood into other species, they called the new factor Rh. In the past two years it has become evident that the supposed single factor is really a group of at least eight subgroups. More prominent among these are: Rh_1, Rh_2, Rh_0 (the original Rh), Rh′, Rh″ and Hr. Heavy tomes have been necessary to record our progress in Rh knowledge since the pioneer one-page article of Landsteiner and Wiener appeared in January, 1940.

Theory.—In general, brief terms we may say that the more important Rh subgroups are somewhat related antigenically, and some cross agglutination does occur. At the risk of oversimplification, but in the interest of clarity, let us now speak of the various subgroups as one single Rh factor. This factor is present in the red blood cells of most (85 per cent roughly) humans, and we refer to such people as being Rh+. The 15 per cent who do not have the factor in their red blood cells we designate as Rh—. Such Rh— individuals are able occasionally to develop powerful antibodies (anti-Rh isoagglutinins) in their plasma against the Rh+ erythrocytes.

Two situations are of vital interest: (1) if Rh+ cells are repeatedly donated to an Rh— individual, the recipient may develop these anti-Rh isoagglutinins capable of causing fatal hemolysis of the donated R+ erythrocytes; (2) an Rh— mother may develop the anti-Rh isoagglutinins by being sensitized transplacentally by an Rh+ fetus she is carrying. Since Rh+ is a Mendelian dominant and Rh— is recessive, an Rh— mother may frequently have an Rh+ fetus, especially if the father is a homozygous Rh+ (both his parents Rh+). In the first situation stated only the recipient suffers, in the second case not only can the fetus' cells be hemolyzed (erythroblastosis fetalis) but should the mother be transfused with Rh+ blood she may have a fatal hemolytic crisis on the very first transfusion.

It is small wonder that the war harried obstetrician, overworked and pressed for time, is discouraged by the multitude of highly technical works on the Rh factor and retreats in dismay before an imposing array of Rh_1, rh, anti-Rh, Rh″, Hr, Rh, *et cetera.* Let us, therefore, consider the practical indirect and direct applications of the newer knowledge.

Applications—1. In a first transfusion: If the woman be pregnant, or recently delivered (the anti-Rh antibodies survive many months after delivery) and if she is Rh— then, as a matter of absolute safety, Rh— blood only should be used for transfusing her. If the husband is Rh+ it is even more imperative that only Rh— blood be used, or if the Rh— mother has given birth to an erythroblastotic baby it is absolutely foolhardy to give anything other than Rh— blood. As stressed by Strumia[5] and his associates, ordinary cross matching tests for incompatibility should be done by inactivating the donor's and recipient's sera and following the test tube method at body temperature for twenty to thirty minutes. But even this procedure, in our own experience and as they themselves state, will not detect all instances of Rh incompatibility. Physicians must be ever on the alert to request Rh typing, as even in hospitals where such tests are done routinely in the obstetrical division, the pathologist will not of course know when a recently delivered patient is readmitted in another division. A tragic example of these important points follows:

Mrs. C., age 21, was admitted to Gynecology service several weeks after delivery. The patient was group AB, the donor also AB. Test tube compatibility tests at room temperature and at 37C. (water bath) were negative after thirty minutes. One pint of blood was given with prompt severe typical hemolytic reaction and death in about eight hours. The patient's blood was Rh—, her husband was Rh+. The donor used was Rh+ and high titer anti-Rh agglutinins, 1:320, were demonstrated in the patient's blood. Unfortunately all of the Rh information was determined after the hemolytic crisis had occurred. Had Rh— blood been administered an entirely different outcome could be expected.

That these instances are relatively rare is due to the fact that only one of seven women is Rh— and of these few, only one in fifty

From The School of Medical Technology, Texas Christian University—Harris Memorial Methodist Hospital, Fort Worth, Texas.
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develops dangerous anti-Rh titre. In other words, only one in 350 will be gravely endangered by the Rh factor. Actual fatal titre is even rarer, and most Rh reactions are simply passed over as "severe transfusion reactions."

It should be noted, however, that the American Red Cross Blood Donor Service[6] will not release waste erythrocytes to hospitals for "antepartum or postpartum patients unless there has been a full appraisal of the Rh factor." Even one transfusion reaction in 350 is one too many if it is as preventable as is the Rh reaction in general. If Rh typing is not available from a reliable laboratory, the so-called "biologic test" transfusion[7] should be done. The older biologic tests consisted in giving 10 or 20 cc. of donor blood and waiting five to fifteen minutes for untoward clinical symptoms. These tests are practically futile since hemoglobinemia and bilirubinemia may be present much later, as shown by Wiener. Again, clinical symptoms may not develop for an hour or even longer. He suggests a much more effective procedure, the determination of increase in icterus index one hour after administration of 50 cc. of donor's blood.[9] Naturally, the recipient's icterus index must be known immediately prior to administration of the test dose. While he suggests that the index be determined on citrated blood for the sake of speed, clotted blood should also be available for a check. If time permits, a second 50 cc. of blood is given and icterus index checked in another hour.

2. In repeated transfusions: Even if the mother, father and baby are all Rh—, or even if no pregnancy is involved, an Rh— patient may have a fatal reaction, not on the first but on subsequent transfusions. Here the patient, an Rh— individual, unwittingly is given several transfusions of Rh+ blood. The first (or even second) may cause no reaction since no anti-Rh antibodies are present. But by the third or fourth transfusion powerful anti-Rh isoagglutinins may have been built up, and the newly donated cells will be hemolyzed with tragic results. It is plain, therefore, that entirely aside from pregnancy, the Rh factor is of vital importance in even the ordinary practice of medicine, where one patient is given repeated blood transfusions. Let it be emphasized that if no trustworthy Rh typing facilities are available, it is imperative to resort to some type of biologic test for the second and subsequent transfusions, if severe reactions are to be entirely avoided. It should be kept in mind as emphasized by Hoxworth[3] in the treatment of the wounded, that even though the Rh reaction may not result in a death, it totally defeats the purpose of the transfusion.

3. In erythroblastosis fetalis: In the mating of a homozygous Rh+ father (both his parents Rh+) and a heterozygous Rh— mother (one of her parents Rh+, one Rh—) the fetus will almost certainly be Rh+. Should the mother belong to the one in 350 group she may produce powerful anti-Rh hemolysins which transplacentally will hemolyze the baby's red blood cells to initiate the hemolytic changes ending in erythroblastosis. It is possible that avitaminosis C may cause the transplacental interchange.

There seems to be remarkable unanimity as to the treatment of the erythoblastotic infant. While admittedly not too satisfactory, it consists of giving daily small transfusions (10 cc. per pound of body weight) of Rh— blood.[8] Since the A and B agglutinogens are not well developed in the first weeks of life, it is preferable to use group O (so-called universal donor) blood. Caution must be exercised in selecting the Rh— blood. Obviously it dare not be the Rh— mother herself since her plasma carries anti-Rh isoagglutinins. Neither should it be an Rh— donor who himself has received Rh+ blood transfusions in the preceding two years, for he also may have anti-Rh antibodies.

Since anti-Rh isoagglutinins may be transmitted in her breast milk[10] it should be noted that nursing such erythroblastotic infants at the mother's breast is to be deplored, no matter how slight the symptoms. Obviously, the mother's milk is transmitting an actively hemolytic poison that endangers her infant's life.

Erythroblastosis fetalis is of course rarer than one in 350 births (actually about 1 in 1,000) so that some additional factor such as repeated stimulation of anti-Rh production is probably necessary. Erythroblastosis, rare in the firstborn, commoner in the younger children of large families, must be dependent on production of an unusually high anti-Rh titre. Another important factor in the statistical discrepancy as suggested editorially in *The Journal of the American Medical Association*[2] may be the individual variations which exist in placental permeability.

4. Abortion and Stillbirths: The habitual spontaneous aborter (if an Rh— woman mating with an Rh+ husband) may be producing sufficient anti-Rh isoagglutinins to cause erythroblastemia and death of the fetus, either early in pregnancy or as a stillborn at term. This field is still in the investigative stage but merits much consideration. Perhaps in the far off legislative utopia, Rh incompatibility with habitual spontaneous

abortion may be actual grounds for divorce!

The problem of therapeutic abortion for imminent erythroblastosis is even more serious. Where a couple has had one or more erythroblastotic infants and perhaps a spontaneous abortion, and where the father is Rh+ and the mother Rh—, a real problem is presented. If in addition one is able to demonstrate anti-Rh isoagglutinins in the blood of the pregnant mother with a history of repeated abortions and erythroblastotic baby, very serious consideration must be given to the necessity for therapeutic abortion. As our knowledge of the Rh subgroups is developed further, it is becoming increasingly possible to predict with relative certainty the probability of erythroblastosis in a given situation.

5. *Eclampsia.*—It is possible that so-called toxemia of pregnancy may prove to be related to the Rh groups and especially to the anti-Hr factor. At this time, however, the few reports available are inconclusive or disappointing. As yet there is no practical application of the Rh factor to the eclampsia problem.

CONCLUSIONS

1. Routine Rh typing is as essential in an obstetrical service as A and B determination.

2. Ordinary cross matching, even at 37 C. will not always determine Rh incompatibility.

3. Rh— pregnant, or recently delivered women and all newborn infants should be given Rh— blood only.

4. Therapeutic abortion on Mendelian grounds, for erythroblastosis, is receiving much attention. While it is becoming increasingly possible to predict whether or not a given infant will have erythroblastosis, the present state of our knowledge does not warrant a definite conclusion on this question.

5. In expected or actual erythroblastosis the infant should receive frequent small transfusions of Rh— group O blood.

6. If any transfusion (a) raises the icterus index, or (b) causes "pyrogen" reaction, or (c) does not raise the hemoglobin level, the Rh factor must be considered as a possible etiologic agent.

7. Every institution should keep an up-to-date list of Rh— universal (Group O) donors available for Rh emergencies.

8. Where no competent clinical pathologic service is available to determine Rh factor, one of the newer "biologic tests" should precede the full transfusion.

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ABSTRACT OF DISCUSSION

Dr. W. Wortham Maxwell, San Antonio: This paper certainly helps to simplify the voluminous literature on the Rh factor discovery and research. Dr. Andujar deserves much credit for this concise review of the subject for our practical use.

First of all, every woman who threatens to abort or who has aborted previously, should be typed for her Rh factor. If this proves to be negative, then her husband's type comes next. However, to find that unusual combination of Rh negative wife and Rh positive husband, is no satisfaction for either doctor or couple. Their reaction to the information, especially after three spontaneous abortions with excessive hemorrhage, becomes a real and pathetic problem to solve. I am faced with just such a couple right now. However, in this case, a third degree retroversion of the uterus does enter the picture as a possible explanation of the repeated abortions.

I would certainly be interested in knowing whether or not the Rh factor enters into the problem of toxemia of pregnancy, either pernicious vomiting or the late toxemia of rising blood pressure and albuminuria.

As for repeated transfusions, this information is without parallel in importance to the entire medical profession, not just the obstetrician. The greatly increased responsibility lies with the laboratory of today, for the Rh factors will be as necessary as typing.

In closing, I am wondering just how much the Rh factor and its subgroups might have to do with explaining why so many obstetrical patients come to delivery of a normal healthy baby with a very low red blood cell count and low hemoglobin index. Apparently, careful diet, vitamins, iron and calcium do not seem to prevent this too frequent obstetric condition.

COLD VACCINES

The prescription and sale of cold vaccines is an unwarranted commercial assault on the public pocketbook, *The Journal of the American Medical Association* for January 22 declares. *The Journal* says:

"Recent communications to the offices of the American Medical Association indicate that the prescription and sale of cold vaccines is again taking place on a large scale. This, in the face of the recognized lack of scientific evidence of the value of these preparations, is indication of irresponsibility on the part of some manufacturers of pharmaceuticals. The scientific evidence against the value of oral cold vaccines is overwhelming; consequently individual physicians and firms who deal in pharmaceuticals and who lend themselves to wholesale uncontrolled distribution of such preparations are perpetrating an unwarranted commercial assault on the public pocketbook."

STERNAL MARROW ASPIRATION AS AN AID IN DIAGNOSIS

R. LOUIS COPE, M. D.
HOUSTON, TEXAS

Examination of the peripheral blood cells has now become a routine procedure in the study of almost every clinical disorder—so-called blood dyscrasias as well as conditions not directly involving the hematopoietic system. In the normal state, these blood cells or cell fragments are chiefly the end or mature products. The red cells have lost their nuclei and only a small percentage retain their basophilic stroma or reticulum. The platelets are even more fragmentary in their make-up. Only the leukocytes are intact cellular units, but usually are completely differentiated, with only a short remaining life span. In various conditions relatively immature cells or abnormal cells may be thrown into the circulation and they aid materially in evaluation of the clinical state.

To find the earlier forms of these blood elements it is usually necessary to examine the source of production, viz., the bone marrow, where the cells may be seen in the various stages of development. Such studies prove interesting and instructive from both academic and practical standpoints.

Marrow obtained at autopsy may be studied by smear, imprint, and section but besides being of no immediate value to the patient it is often difficult to demonstrate detailed cellular morphology because of the rapid autolysis which occurs after death.

During life, marrow may be obtained by trephining or puncture. However, at the present time, trephining is seldom employed having been supplanted almost entirely by puncture. In infants and young children the upper end of the tibia or the lower end of the femur are the preferred sites for puncture, but in the adult these locations are unsatisfactory because of (1) the thickness of the cortex, and (2) active marrow is usually not found in the long bones under normal conditions after the age of 18.

The sternum, then, is the site of choice in the adult because of its accessibility and its cellular marrow content. A few writers report use of the manubrium, but a greater proportion of fat is usually found here. The upper portion of the body of the sternum is best, especially between the second and third rib.

Aspirated marrow has the disadvantage of not retaining the structural integrity of the marrow tissue. However, the stained smear gives cytological detail not evident in tissue sections. Moreover, sternal puncture is a simple procedure, without danger, that can be repeated frequently if indicated.

In the preparation of smears one of two methods are in use: (1) a small amount (several drops or so) of marrow blood is aspirated and spread directly on the slides, and (2) a somewhat larger amount of fluid is withdrawn, an anticoagulant added, and then centrifuged in a hematocrit tube until the nucleated and non-nucleated layers are distinct—smears being made from the nucleated portion. I like to prepare both at the same time, examining the concentrated preparation only in the event that the simple smears are too meager in nucleated material.

The differential count on marrow blood is commonly termed a myelogram. In any given case, the myelogram should be compared with the average normal, particularly recording the presence of abnormal cells such as megaloblasts, or lymphoblasts; also, the ratio of the nucleated reds to the white cell elements should be noted. At least several hundred cells should be counted in making a meylogram.

Because of its simplicity and diagnostic value sternal puncture has become almost a routine procedure in most higher ranking institutions. In general it is indicated in any condition involving the hematopoietic system where the etiology is at all obscure. However, even with the diagnosis quite definite, a study of the bone marrow is certainly not out of order. Unexplained anemias probably comprise the largest group in which sternal puncture may be helpful. Thrombocytopenias, leukopenias, leukemoid states are other large groups.

SPECIFIC CONDITIONS IN WHICH MARROW EXAMINATIONS MAY BE OF VALUE

Leukemia.—Not infrequently in this disorder a few or no abnormal cells will be found in the peripheral blood. These aleukemic phases may persist for varying periods of time; occasionally, leukemic cells are never detectable by the usual methods throughout the entire course of the disease. Hence, sternal puncture may be the only means by which a diagnosis may be established. On examination the marrow usually shows an increase in the primitive forms of white cells.

CASE REPORT

W. W., a Negro male, age 41, was admitted to the hospital for the first time on July 2, 1943.

The history was obtained from a relative, who stated that the patient had been well until one year ago when he began to complain of severe headache, dizziness, backache and weakness. However, he continued to work until four months ago, at which time he fell off a tractor and remained unconscious for two hours.

During these four months the patient was said to be mentally confused the entire time. His ap-

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petite remained good but he lost weight rapidly.

Physical examination revealed an emaciated Negro man who talked irrationally and who was obviously anemic and acutely ill. The pupils reacted sluggishly to light. The sclera were slightly icteric and the conjunctivae pale. The heart sounds were distant. Abdominal examination was unsatisfactory because of tenseness.

Laboratory Findings: The erythrocyte count was 1,000,000; hemoglobin 3 Gm.; leukocytes 9,000; neutrophiles 71 per cent; lymphocytes 25 per cent; eosinophils 2 per cent; monocytes 1 per cent. No reticulocytes were found. The platelet count was 170,000, and icterus index 18. The urine was slightly positive for urobiligen. Kolmer and Kline tests were negative. Gastric analysis showed free acid 20, total 37. The stools were positive for occult blood on two occasions, and negative on four subsequent ones.

Eight transfusions of 500 cc. each were given during his two months' hospital stay. Liver and iron were also given. His condition improved gradually. On September 28, 1943, the blood showed erythrocytes 2,220,000; hemoglobin 5 Gm.; leukocytes 3,000. He was discharged on September 30, with undetermined diagnosis.

He was readmitted October 7, 1943, and stayed for one week. He had an evening rise in temperature, at times reaching 101.5 F. There was little change in the blood picture.

On November 14, 1943, he was again brought to the hospital in an irrational state. There was vomiting and dyspnea. He thrashed about in bed and answered "yes" to all questions. Other than the obvious pallor there were no physical findings of note. The red cell count was 580,000 and the hemoglobin less than 2 Gm.

After a transfusion his mental confusion disappeared, he felt well and walked about the ward.

X-ray examination of the skull was negative. The urine was negative for Bence Jones protein. The icterus index varied between 3 and 30; the Van den Bergh was indirect; fragility normal, and prothrombin time 70 per cent of normal. There was no sickling of the red cells.

On November 17, 1943, the first sternal puncture was performed. Smears of the marrow blood showed many immature cells of the lymphoblastic type. The myelogram was as follows: lymphoblasts 71 per cent (46 per cent early and 25 per cent late forms); promyelocytes 2 per cent; myelocytes 6 per cent; metamyelocytes 12 per cent; neutrophils 6 per cent; and lymphocytes 3 per cent. Only an occasional nucleated red cell was found. A few of the leukemic cells were in a state of mitosis.

On November 23 the spleen was palpable. On December 13 an axillary lymph node about the size of a pea was discovered. A biopsy showed obliteration of the normal structure with lymphoid cells and fibroblastic tissue. The pathologist's diagnosis was lymphosarcoma or leukemia, probably lymphosarcoma.

Donors were not available, and the patient's course was steadily downward. The red cell count fell to 500,000, and the hemoglobin was correspondingly low (too low for accurate reading).

Two subsequent sternal punctures were performed. The last one showed a lymphoblast percentage of 76 per cent. The diagnosis having been established by marrow examinations, a daily search for leukemic invasion of the peripheral blood was made. This did not occur until the day before death. The differential count revealed: lymphoblasts 6 per cent; lymphocytes 85 per cent; neutrophiles 10 per cent. The total leukocyte count was 2,000.

Autopsy showed some enlargement of the spleen and liver, several involved lymph nodes and diffuse infiltration of the bone marrow with leukemic cells almost completely replacing the normal marrow tissue.

Multiple Myeloma.—In many respects this condition resembles a leukemia which fails to invade the blood stream. The abnormal cells are often of the plasma cell type. Although the bone lesions are essentially "spotty" in character, some myeloma cells will very frequently be found in the marrow obtained by sternal puncture. Such a finding would definitely establish the diagnosis of myeloma which otherwise might only be suspected by such evidence as rarefactions in the bones, Bence-Jones protein, and anemia. In a series of 10 strongly suspected cases, Beizer, Hall, and Griffin found myeloma cells in 8, by sternal aspiration.

Pernicious Anemia.—In a disease syndrome such as this every available bit of evidence may be needed to prove or disprove the diagnosis. This is particularly true in atypical cases or in instances where there are complicating diseases. And there is no better example in medicine of the necessity of being certain of the diagnosis, preferably before treatment is instituted.

Next to the actual demonstration of an absence of the anti-pernicious anemia factor in the gastric or intestinal secretions and the therapeutic response to this factor, the bone marrow picture during severe relapse is probably the most specific finding in this disease.

There is distortion of both the erythroid and the myeloid elements. The marrow shows an increased cellular content caused chiefly by erythroid hyperplasia. Members of the normoblast series may be seen, but that which distinguishes this marrow from that of other anemias is the presence of megaloblasts. These cells are not only larger than those of the normal series but also show qualitative changes as well; particularly characteristic is the disparity between the nucleus and cytoplasm in regard to their developmental stage, the nuclear structure being of much finer texture than that of the corresponding normoblastic cell. Mitotic figures are common. Many of the myeloid cells too are extraordinarily large and show abnormalities in their structural patterns and nuclear-cytoplasmic relationship; these changes are particularly noticeable in the metamyelocytes. This picture represents an absence of the anti-pernicious anemia factor and hence may be found in sprue and other conditions accompanied by a lack of this factor; such morphological findings in the marrow indicate that the patient will respond to liver extract.

It should be emphasized that these changes disappear quickly after liver therapy. Hence sternal puncture must be performed before

or very soon after treatment is instituted to be of diagnostic value.

Purpura Hemorrhagica.—Marrow studies are chiefly helpful in ruling out such causes as leukemia and aplastic anemia. In the thrombopenic variety there is characteristically an increase in the megakaryocytes which may show various cytological abnormalities; however, the marrow may be quite normal.

Aplastic Anemia.—Although in classical cases the bone marrow in this condition is scanty in all cellular elements except lymphocytes, it is now known that the marrow may be normal or even hyperplastic. In the aplastic type it may be necessary to repeat the puncture or to get an actual biopsy in order to substantiate the negative findings.

Agranulocytosis.—As reflected by the peripheral blood, the bone marrow shows an absence of granulocytes and their immediate precursors. Myeloblasts may be present as well as somewhat later members of the series. Increased numbers of the latter indicate a more favorable prognosis as a rule.

Miscellaneous.—Limarzi and his associates have shown that the marrow picture is rather distinct in the various stages of Banti's and related syndromes. They found such a study to be of prognostic value as regards splenectomy in the more advanced stages.

In malignancies with widespread metastases, cancer cells are sometimes found in the marrow smears. In Hodgkins' disease sternal aspiration is of value chiefly in the negative findings.

Several investigators have shown that the concentration of malarial parasites is greater in marrow than in peripheral blood and that they may be found by sternal puncture even when serial thick smears are negative. The same has been reported in kala-azar, filariasis and trypanosomiasis. Also, cultures of marrow in subacute bacterial endocarditis and pyogenic infections have yielded positive results when the peripheral blood is sterile.

SUMMARY

In certain conditions, sternal puncture gives pathognomonic evidence for establishing a diagnosis. A case is presented illustrating this point. In other diseases marrow studies may contribute materially to the diagnosis and prognosis. It should not supplant other accepted procedures but should be used in conjunction with them.

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LYMPHANGITIS OF THE MUCOSA OF THE PARANASAL SINUSES

J. MATHEWS ROBISON, M. D.
HOUSTON 2, TEXAS

Lymphangitis of the mucosa of the paranasal sinuses may be defined as a disorder of the lymph spaces of the mucosa manifested by an increase in the amount of tissue fluid in the intercellular spaces and lymph pathways. This increase in fluid at first produces only a simple edema, but if the edema is allowed to persist over a variable period of time a terminal fibrous overgrowth of the stroma of the mucosa ensues with a consequent reduction in the ability of the mucosa to return to normal, or to increase its volume by becoming edematous.

To better understand some of the anatomical and physiological changes which occur during lymphangitis of the mucosa it is important to consider some of the fundamental characteristics of the lymphatic system. "The first circulatory fluid of invertebrates was the sea water in which they lived as it is today in a number of forms. It passed through openings into the channels of the primitive vascular system, and when in higher forms as they developed, this system became closed off from the exterior, the fluid it contained was still sea water of that early period as still are, in the composition and concentration of their salts, the blood plasma and lymph of vertebrates of today."[4] The lymphatic system arises in the philogentic scale of life as "it apparently becomes necessary to provide a mechanism other than the blood vascular system for clearing the tissues of substances not readily absorbed by the blood."[5]

Importance is given to the interchange of body fluids when one takes into consideration that 70 per cent of the body weight is water which is distributed as 50 per cent intracellular fluid, 15 per cent interstitial fluid and 5 per cent blood plasma.[5] "When one considers that all of the secretions mentioned are derived directly from the blood plasma, it appears that a total of 24-hour fluid turnover of 4,000 to 16,000 cc. is accomplished from a circulating medium of about 3,500 cc. (plasma volume)."[2, 1] The lymphatic system reaches its highest development in mammals,

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From the Department of Otolaryngology of the University of Texas, School of Medicine, Galveston, Texas.

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and its physiology consists chiefly in removing from the tissue fluid in the intercellular spaces the products of cell metabolism, cellular detritus, particulate matter and protein brought from the blood plasma into the lymph bed by capillary filtration, leaving the water, salts, and certain diffusible toxic substances to be absorbed by the venous capillaries. The interchange of fluid from the capillaries into the lymph bed is controlled by the permeability of, and the pressure within, the arterial capillaries while the absorption of the capillary filtrate depends upon the colloid osmotic pressure of the proteins of the blood plasma, the venous capillary pressure and a draining lymphatic system. Apparently, the magnitude of the tissue pressure may be a factor in both filtration and absorption of the tissue fluid. "Tissue pressures which limit filtration seldom develop if conditions are such as to pump lymph forward and so prevent the accumulation of

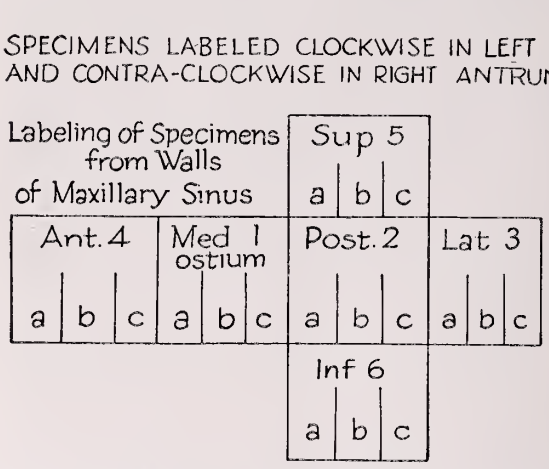
SPECIMENS LABELED CLOCKWISE IN LEFT AND CONTRA-CLOCKWISE IN RIGHT ANTRUM
Labeling of Specimens from Walls of Maxillary Sinus
Sup 5
a b c
Ant. 4
Med 1 ostium
Post. 2
Lat 3
a b c a b c a b c a b c
Inf 6
a b c

FIG. 1. To determine the anatomical distribution of changes in the mucosa of the maxillary sinus the physical characteristics of specimens from the various regions of the sinus were compared. Since these specimens were obtained during operations which were indicated because the normal physiology of the sinus mucosa had been destroyed, impressions concerning the earlier pathological and physiological changes were obtained by comparison of musoca from similar areas in the various types of disease of the sinus.

proteinized tissue fluid, with its potentiality of increasing pressure and so impeding filtration".[5]

Normally, the crystalloid solutes of the plasma perfuse freely through the capillary walls so that their osmotic pressure is the same in the plasma and tissue fluid. However, the normal impermeability of the capillary wall to the plasma protein sustains the colloid osmotic pressure of the blood, and controls the absorption of the tissue fluid, maintaining normally a "dry" lymph bed.[10]

Pathological changes in the interchange of fluid between the blood plasma and lymph bed are often manifested by an increase in the intercellular fluid, resulting in edema of the tissues concerned. Edema of this type, when occurring as a localized reaction as it does in the sinus mucosa, ordinarily results from an increase in the permeability of the capillaries. This increased permeability is most often due to some traumatic, thermal, chemical, allergic or bacterial agent and the resulting capillary filtrate contains a varying amount of protein depending upon the character, intensity and duration of the stimulus. For practical purposes capillary filtrate, tissue fluid (intracellular fluid and interstitial fluid) and lymph may be considered to be the same except for the varying amounts of protein which they contain.

During inflammatory processes, edema fluid of high protein content frequently forms. As fibrin and blood cellular elements are deposited in the interstitial spaces, lymph pathways and lymph nodes in an effort to localize the infection, partial or complete lymphatic blockage occurs. This leads to a further increase in protein concentration as the water and salts are absorbed into the blood plasma.

Normally, fibroblasts are nourished in a tissue fluid which has a very low protein content (0.3 per cent).[7] As tissue fluid stagnation occurs and its protein content rises, added food for growth is available and the fibroblasts proliferate. The dilated interstitial spaces then become filled with newly formed fibrous tissue, which leads to a permanent thickening of the part. This is a biological protective phenomenon which drives from the tissue spaces a stagnant, highly protenized fluid filled with products of cell metabolism. Also, this is the basis for the fibrosis which follows long continued passive congestion.

In considering the application of the foregoing physiological principles to disorders of the mucosa of the paranasal sinuses, attention should be directed first to the physiology of the normal sinus mucosa. The normal sinus mucosa which is seldom more than .02 mm. in thickness,[6] with its ciliated epithelium and mucous covering, carries out the physiology of the normal sinus by keeping its lining membrane free of extraneous material. The stroma of this normal mucosa consists of loosely-spaced fibroblasts with interstitial spaces which are capable of rapid, wide distention by edema fluid. This means that the resistance of the tissue pressure to filtration from increased capillary permeability in very low.

Body cavities which normally contain air tend to replace the air in the cavities with fluid, exudate or edematous tissue whenever these cavities become irritated or infected. The degree of displacement of air from the

cavity is usually in proportion to the degree of increased capillary permeability produced by the offending agent. This principle is manifested in the lung by the consolidation found in pneumonia, by the filling of the mastoid cells and tympanum during acute purulent otitis media, and by the filling of the paranasal sinuses with secretion and edematous membrane during acute purulent sinusitis. Return of air to these cavities is one of the important physical signs of recovery. Likewise, the ability of the mucosal lining of the sinuses to become edematous and approach the capacity of the cavity and then return to its former normal consistency after recovery from the infection is one of the most important physiological characteristics and functions of the mucosa. The physiological necessity for the displacement of air from these cavities is to be found in the mechanism provided for the flow of lymph from their lining membranes. In man, lymph is returned to the venous circulation by muscular contraction, massage, gravity, and arterial pulsation transmitted to the lymph vessels.

Muscular contraction, massage and gravity may be considered the methods by which lymph is normally propelled through its channels, reserving for pathological processes the propulsion of lymph by gravity and the transmission of arterial pulsation to the lymph vessels. This transmission of pulsation is greatly enhanced by dilatation of the arteriovenous anastomoses. These anastomoses, which exist in nearly all the tissues of the body, are small shunts between the arteries and veins, that dilate whenever it is necessary for more blood to be brought to a part than can be carried through the capillary system. This is necessary particularly during inflammation or exposure to cold. Also, by dilatation they lower the capillary pressure and thereby reduce capillary filtration and edema formation.[3]

In soft tissue during inflammation the edema fluid causes a rise in tissue pressure, which is resisted by the fascial planes of the body and the integument covering the part. This rise in tissue pressure facilitates the flow of lymph by transmission of arterial pulsation to the lymph vessels. The bony enclosure of the cavities of the nose and sinuses provides a medium against which their lining mucosa may swell, and through reduction of air cavitation allow the flow of lymph to be accelerated by the transmission of arterial pulsation to the lymph vessels by hydrostatic pressure.

In considering the pathological reactions which occur in the sinuses it is necessary to first evaluate the ability of the offending agent to produce an increase in the permeability of the capillaries in the sinus mucosa; second, to consider the physiological reactions to protein filtration of various concentrations; and, third, to observe the pathological changes which occur when the physiology of the edematous membrane becomes pathological and is unable to properly rid itself of the abnormal amount of protein, products of cell metabolism, etc., and thus avoid the inevitable fibrosis which occurs when these substances are retained within the interstitial spaces of the fibroblasts of the mucosa.

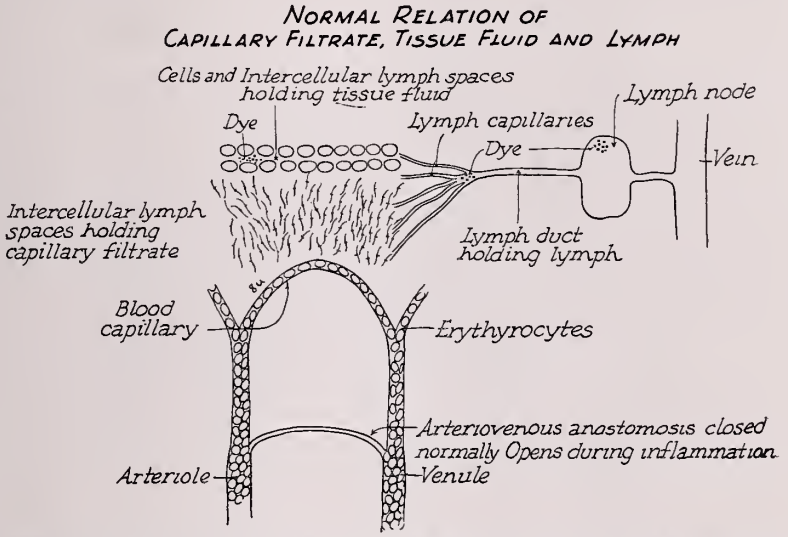

Fig. 2. Schematic drawing showing normal relation of capillary filtrate, tissue fluid, and lymph which may be considered to be the same except for the varying amounts of protein which they contain. Capillary filtrate containing oxygen and food for the body cells passes into the cellular bed from the plasma in the arterial side of the blood capillary. Water salts, carbon dioxide and certain diffusible products are absorbed by the venous side. Products of cell metabolism, cellular detritus, particulate matter, unused food (protein) and little water are carried from the cell bed by the lymphatic system. This entire process is related to the diffusion characteristics and size of the molecule involved. Varying with its magnitude the tissue pressure offers resistance to filtration and promotes absorption. Dye injected into the normal cell bed travels freely along the lymph pathways.

A consideration of the irritative and infective processes which produce edema of the sinus mucosa is now offered, in the order of their ability to produce a capillary filtrate of low or high protein content. Also, the effects of this filtrate upon, and its disposition by, the physiology of the sinus mucosa will be discussed. Due to its frequency of infection, accessibility and ease of observa-

tion, the following remarks will be directed particularly to the maxillary sinus.

1. ACUTE ALLERGIC SINUSITIS

This frequently occurs as a part of acute allergic rhinitis and usually subsides with the removal of the allergen. The edema of the sinus mucosa is usually slight unless the allergen becomes trapped in the sinus cavity, or secondary bacterial infection supervenes. When this occurs and the process is limited to the surface of the mucosa, recovery is

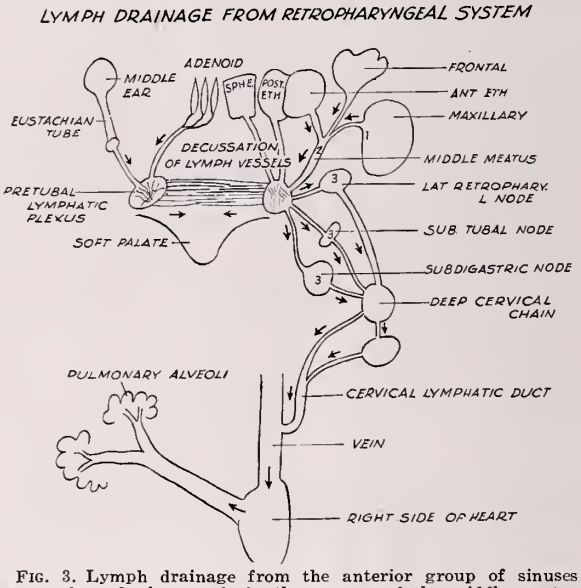

FIG. 3. Lymph drainage from the anterior group of sinuses passes through the vessels in the mucosa of the middle meatus into the pretubal lymphatic plexus where it is joined by lymph from the posterior sinuses, tympanum, eustachian tube, adenoid and nasopharynx. The efferent plexus vessels anostomose freely across the posterior surface of the septum and soft palate, pierce the pharyngeal aponeurosis and drain into the lateral retropharyngeal and subdigastric nodes. After passage through the deep cervical chain of nodes, cervical lymphatic duct, vein and right side of the heart the lymph gains access to the vascular bed of the pulmonary alveoli. Through these channels protein and bacterial products may be carried from the sinuses, etc., to the general circulation.

Localized lymphatic blockage occurs in this system as at (1) as small abscess formation in the mucosa or as generalized fibrosis of the mucosa. The latter may effectively isolate the entire sinus from the general lymphatic circulation. Fibrosis occurring along the lymph channels in the mucosa of the middle meatus as at (2) may effectively isolate the anterior group of sinuses. Lymphatic blockage in this region caused by pressure due to swelling, the result of intrameatal manipulation and treatment, may be a potent deleterious factor during acute anterior sinusitis. Swelling of the lymph nodes as at (3) may effectively block off the entire lymph bed of the sinuses, etc., from the general circulation. This type of lymphatic blockage allows retrograde circulation of lymph from an infected or cancerous area to a normal area.

usually prompt following irrigation of the maxillary sinus. Centrifugation of the washings from these sinuses shows certain particulate matter, the significance of which is not known.

2. ACUTE BACTERIAL SINUSITIS

Bacterial infection of the sinus mucosa may occur on its surface or in its lymph spaces when they become dilated by edema fluid. During the usual acute purulent sinusitis the mucosa of the sinus becomes edematous and the remaining air cavity is filled with fluid which comes from the glands and open lymph spaces of the mucosa. During virulent infection of a previously normal mucosa the volume of the mucosa gradually increases until it approximates the capacity of the sinus and the volume of the secretion becomes constantly less until it is absent or negligible. When this cycle has been completed the sinus may be considered healed except for the return of its mucosa to its normal thickness, which ordinarily occurs rapidly. Variations of this clinical picture occur frequently as the result of invasion by bacteria of attenuated virulence, immunological reactions, chemotherapy, treatment, etc.

3. CHRONIC BACTERIAL SINUSITIS

The normal sinus mucosa contains few lymph spaces and does not absorb dyes, etc., from its surface. However, when it becomes edematous its lymph spaces open and through these, particulate matter, bacteria and absorbable fluids of lower osmotic pressure than the edema fluid in the sinus mucosa may gain access to the interstitial spaces. Chronic bacterial sinusitis may be divided into two groups according to whether the bacterial invasion is primary or occurs secondary to some previous pathologic condition.

A. *Primary chronic bacterial sinusitis* results from the protienized edema fluid of the acute stage remaining in the dilated lymph spaces of the mucosa. This leads to proliferation of the fibroblasts of the stroma and a permanent uniform thickening and overgrowth of the part.[9] The result is a mucosa which can no longer become edematous and carry out its physiological function of approaching the capacity of the sinus and returning to normal. This frequently terminates in a sinus which is unable to empty itself of contained secretion. This type of sinus infection may be relieved by irrigation but there will be a recurrence of retention of secretion following certain types of respiratory infection. In this type the fibrosis of the mucosa usually produces complete local lymphatic blockage so that there is no systemic absorption through the lymphatic system, nor is there any intranasal tissue turgescence to betray the presence of the pus in the sinus. The proclivity of lymph channels for rapid regeneration may allow a fibrotic mucosa to resume some of its former physiological characteristics, if it is kept free of infection for a period of time.

B. *Secondary chronic bacterial sinusitis* is usually engrafted upon either an acute or chronic allergic mucosa. The edema fluid present in acute allergy is low in protein and may be present for a long time before it produces a marked fibrosis of the mucosa. How-

ever, if bacteria invade the interstitial spaces of the mucosa the protein content of the edema fluid rises rapidly and the process of fibrosis is accelerated. During acute allergic sinusitis, lymphatic blockage is not complete so we frequently find these patients presenting symptoms of absorption of protein and bacteria into their venous circulation. There is always marked intranasal tissue turgescence in these patients, which often results in complete nasal stenosis. This nasal stenosis is the effort of the *lymph pump mechanism* to obliterate the air from the nasal cavities and reduce the amount of protein and products of cell metabolism in the lymph bed of the sinuses by transmission of arterial pulsations to the lymph vessels by hydrostatic pressure.

During chronic allergic states of the sinus mucosa the fibrosis which occurs is apparently not as uniform as that which follows pure chronic bacterial infection. This is manifested histologically by alternating areas of fibrosis and dilated lymph spaces in the mucosa.[8]

The etiology of the formation of this irregular fibrosis is not known but it may be the result of localized infection or the absorption of particulate matter. Due to the lymphatic blockage present and the absorption by the venous capillaries of the salts and water, the protein content of the edema fluid becomes very high. This stagnated tissue fluid is poor in bactericidal power and very susceptible to recurrent infection. When bacterial invasion occurs in this fluid, the tissue pressure is increased and polyps form from the areas of dilated lymph spaces. This terminates in a chronic infectional edema of the sinus mucosa. As the lymphatic pathways which drain this area regenerate they also become fibrotic due to the drainage of protein, products of cell metabolism and bacterial filtrates. This terminates in a chronic lymphangitis of the mucosa of the sinuses. Thus far the only solution found for this condition is the complete removal of the diseased mucosa so that a new lining membrane may be formed which contains a new lymphatic system.

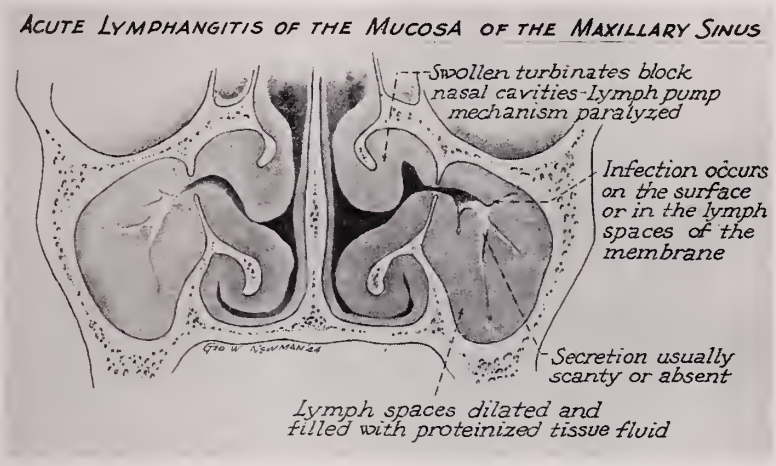
ACUTE LYMPHANGITIS OF THE MUCOSA OF THE MAXILLARY SINUS
Swollen turbinates block nasal cavities-lymph pump mechanism paralyzed
Infection occurs on the surface or in the lymph spaces of the membrane
Secretion usually scanty or absent
Lymph spaces dilated and filled with proteinized tissue fluid
GEO. W. NEWMAN 24

FIG. 4. Acute lymphangitis of the mucosa of the maxillary sinus is usually due to infection gaining entrance to the dilated lymph spaces of an individual suffering from nasal allergy. The mucosa swells until it approximates the capacity of the sinus. There may or may not be secretion present in the sinus. Following traumatism to this mucosa, systemic complications such as pleurisy, pneumonitis, etc., are prone to occur. The edema of the mucosa and intranasal tissue turgescence may remain for a protracted time until alternating areas of fibrosis and dilated lymph spaces are formed in the mucosa and middle meatus. This condition after recurrent infection terminates in the chronic polypoid stage of the disease.

PRACTICAL CONSIDERATION

1. The lymph bed of the mucosa lining the structures derived from the first branchial pouch drains through the retropharyngeal and subdigastic lymph nodes (Primary Echelon).

2. The bony enclosure of these cavities, *i. e.*, middle ear, eustachian tube, nasopharynx, nasal cavities and paranasal sinuses, provides a medium against which their lining mucosa may swell and increase its tissue pressure. Also, this enclosure precludes a wide dispersal of lymph from these areas and allows lymphatic blockage to occur very easily.

3. Lymphatic blockage may occur, (a) in the lymph nodes; (b) along the lymph pathways as in the middle meatus; (c) localized in the lymph bed of one of the sinuses as a generalized fibrosis of the mucosa, or as small abscess formation.

4. When fibrosis of the mucosa of a sinus occurs, the mucosa can no longer swell and approach the capacity of the sinus. This results in retention of secretion in the sinus following infection.

5. The *lymph pump mechanism* drains lymph from this area during pathological states by gravity and by pulsations transmitted from the arterial to the lymphatic vessels by hydrostatic pressure.

6. Intranasal tissue turgescence and obliteration of the air-containing cavities of the nose and sinuses is a part of the effort to pump lymph from this area by hydrostatic pressure.

7. Intranasal tissue turgescence is always present when there is excessive lymph in the lymph bed, unless localized lymphatic blockage has occurred. This turgescence is always

severe and nasal stenosis is constant during acute lymphangitis of the mucosa of the sinuses. Lymphangitis is not the only etiology of intranasal tissue turgescence.

8. During acute lymphangitis of the mucosa when the lymph channels are open, systemic complications are particularly prone to arise. Most often these occur as asthma, pleurisy and pneumonitis, but may take the form of arthritis or nephritis.

9. The rapidity of formation of new fibrous tissue in the stroma of the mucosa depends directly upon the amount of protein and bacterial products in the edema fluid in

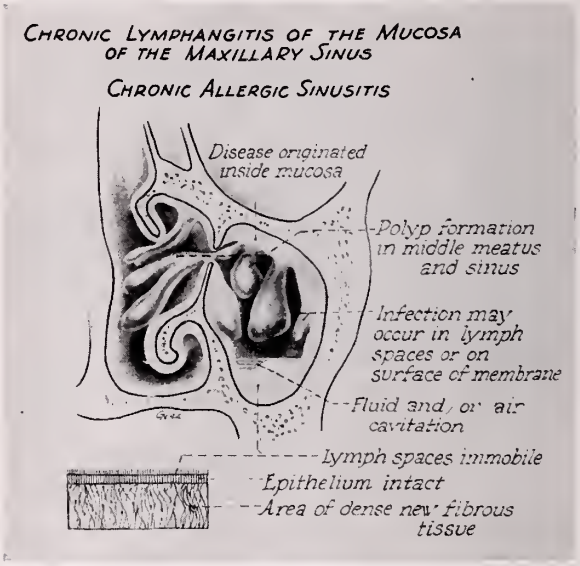
Chronic Lymphangitis of the Mucosa of the Maxillary Sinus
Chronic Allergic Sinusitis
Disease originated inside mucosa
Polyp formation in middle meatus and sinus
Infection may occur in lymph spaces or on surface of membrane
Fluid and/or air cavitation
Lymph spaces immobile
Epithelium intact
Area of dense new fibrous tissue

Fig. 5. Chronic lymphangitis of the mucosa of the maxillary sinus and middle meatus is the result of long continued retention of edema fluid in the interstitial spaces of the mucosa. When infection occurs following the formation of alterating areas of fibrosis and dilated lymph spaces in the mucosa, the rise in tissue pressure produces polypoid formations from the areas of dilated lymph spaces.

the mucosa, and the length of time this fluid is allowed to remain in the mucosa.

10. Chronic purulent otitis media and mastoiditis may be prevented by proper treatment of the acute stage, usually during the first six weeks. How long can the mucosa of the sinuses remain edematous and then return to normal? We hope to help answer this question by further study of the chemical and physical characteristics of the edema fluid and its influence on the growth of fibroblasts as observed during tissue culture.

[1] *Acknowledgements.*—I am indebted to Dr. Paul Brindley, Professor of Pathology; Dr. John G. Sinclair, Professor of Histology and Embryology; Dr. George M. Decherd, Jr., Associate Professor of Medicine, and Dr. Ludwik Anigstein, Assistant Professor of Preventive Medicine and Public Health, in the University of Texas, School of Medicine, Galveston, for their aid and cooperation in problems concerning this study. I am also indebted to Miss Dorothea Neubauer and Peter S. Erhard for their excellent technical assistance in bacteriology and chemistry, and to George Neuman and R. A. Sage, of the Department of Medical Illustrations, for their excellent work. I am particularly indebted to the epochal works of Dr. Cecil K. Drinker, Professor of Physiology in Harvard University, and his associates, from which I have used ideas freely.

1304 Walker Avenue.

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ABSTRACT OF DISCUSSION

Dr. J. B. Nail, Wichita Falls: I deeply appreciate Dr. Robison's hard work on this paper and feel that his object was to assist us to visualize what has occurred during disease in the sinus cavities and what to do about it.

Lymphangitis of the sinus mucosa as it progresses from the early stages of increased fluids in the tunica propria on to the fibrotic or cystic state of chronic inflammation as outlined by Dr. Robison is most interesting and instructive. Most of us have accepted the theories and explanations of Ballinger, Hajek, and Thompson of the changes taking place in the sinus mucosa as it passes from the physiological functioning membrane to the acute and chronic pathological states. Hildings' report of the altered mucin drainage from the sinuses explains the impairment of physiological ciliary drainage. I have visualized the serum accumulation and infiltration of leukocytes in the submucous tissues, along with dilated capillaries of the area, as the inflammation passes on to the purulent stage. It never occurred to me that this serum exuded from lymphatic channels or that it possessed high protein content. The lymphatic blockage theory or explanation seems quite adequate, and to me provides the missing link between the acute and chronic stages of the sinus mucosa.

I made histopathological examinations of all tissue removed at operations on a large number of patients upon whom I had performed the Caldwell-Luc operation to confirm or deny justification for its removal, and also, to correlate the pathological findings with the diagnostic data and clinical picture of each case.

After reading Dr. Robison's paper, I reviewed several of these slides. From this review, I came to the conclusion that the heavy round cell infiltration found on some of my slides was due to lymphatic blockage, and the fibrosis identified on other slides was the terminal result of it.

I like his classification of sinus disease and his implications of the treatment indicated. I want to cite one case of acute allergic sinusitis which demonstrates that the removal of the allergen from the sinus relieves the condition. A boy, 16 years of age, came to my office last summer with a history of complete nasal obstruction which came on suddenly

while swimming the day before. He had never had hay fever and had used this same swimming pool for the past several years. Recent rains had caused an overflow from adjacent fields into this five-acre pool. His nose presented the usual appearance of an allergic rhinitis. He was given a Proetz treatment and an antrum irrigation on both sides, and the allergic rhinitis subsided in a few hours.

In regard to the treatment of sinuses, I want to quote Dr. Wesley C. Bowers, one of the attending surgeons at St. Lukes, on the otolaryngological service where I interned, who passed this little prayer along to us.

"Oh Lord, give me serenity to leave alone that which should be undisturbed; courage to do that which should be done; and wisdom to know one from the other."

Lt. Col. Louis C. Heare, M. C., Camp Howze: Dr. Robison is to be congratulated on the original field of study brought out in his paper. It seems to me that he is broadly discussing a subject which needs special consideration. I would like to ask Dr. Robison if he has considered the connection of the autonomic nervous system with sinus conditions.

Dr. Robison: I appreciate very much the discussions of Dr. Nail and Dr. Heare. To answer Dr. Nail's question about the absence of lymph spaces in his sections, I should like to say that the reason he found so few present was because the physiology of the mucosa from which he obtained his specimens had been completely destroyed before he operated. This destruction of the physiology of the mucosa was due to filling of the lymph spaces by fibrous tissue.

In answering Dr. Heare's question about the relation of the autonomic nervous system to this process, I can only say that I know this is a very interesting subject but it is one about which I have been able to learn very little.

CRITICAL SHORTAGE OF QUINIDINE

Because of the critical shortage of quinidine, physicians, hospital administrators and pharmacists are asked by *The Journal of the American Medical Association* in its April 22 issue to cooperate in rigidly restricting the drug to prescription use for the treatment only of heart disease. Quinidine is obtained as a by-product in the manufacture of quinine.

The Journal says that "For some time an acute shortage of quinidine has existed in the United States. Consumption has been high and replacement of present supplies practically negligible. As a result of its critical status, the Committee on Drugs and Medical Supplies of the National Research Council and its Sub-committee on Cardiovascular Diseases recommended that quinidine be limited to prescription use for the treatment only of heart disease. . . .

"Regardless of these proposals and the publicity given to them, consumption of quinidine has continued to be high. Ordinarily, about 80,000 ounces of the drug is used during a year; present stocks amount to between 29,000 and 30,000 ounces. It is the duty of every physician to prescribe quinidine only when no other drug will elicit a favorable response, and then only in quantities not exceeding fifty tablets for each prescription. Hospital administrators can provide much assistance by insisting that the members of the staff adhere rigidly to a program which provides for the restricted use of such critical drugs as quinidine. Pharmacists have a moral responsibility to release quinidine only on prescription. This is an emergency, and whole hearted cooperation is essential."

THE RECENT DEVELOPMENTS IN THE PROBLEM OF SPOTTED FEVERS

LUDWIK ANIGSTEIN, M. D., PH. D.
(Associate Professor of Tropical Medicine
University of Texas, School of Medicine)
GALVESTON, TEXAS

Spotted fever is a member of the large and still growing group of acute infectious diseases caused by peculiar micro-organisms called rickettsiae. The pathogenic rickettsiae are originally parasites of insects, ticks and mites which transmit the infection to mammals and also to man. Consequently, all rickettsial diseases are under natural epidemiological conditions arthropod-borne infections. These include the flea- and louse-borne typhus fevers, the tick-borne spotted fevers and the mite-borne scrub-typhus (tsutsugamushi). In analyzing the parasitic nature of rickettsiae we will find their strict adaptation not only to the tissues but to certain cells of the respective arthropod-vector. This adaptation of rickettsiae to parasitic life is so intimate that they invade the cytoplasm of their host, thus becoming intracellular parasites. In one instance, namely, in spotted fever, even the cell-nucleus will be invaded and destroyed.

These biological peculiarities of rickettsiae give sufficient reasons to separate them from ordinary bacteria. Morphologically, however, it would be rather difficult to give a standard description of rickettsiae which appear under various forms of rod-shaped, coccal or diplococcal organisms, being usually smaller than ordinary bacteria. With the exception of the Rickettsia burneti (diaporica)—the agent of Q fever—which is filtrable, all the other known pathogenic rickettsiae are not filter passers. The metabolism of pathogenic rickettsiae also differs widely from that of bacteria as they can only be cultivated in vitro in the presence of living tissue, which is also required by true viruses. It seems, therefore, that the rickettsiae occupy a position intermediate between bacteria and viruses.

From the viewpoint of natural history, the pathogenic rickettsiae probably evolved from free-living forms which gradually became parasites of arthropods (Burnet, 1942). Eventually due to the development of blood sucking habits of the arthropod host, the rickettsiae were accidentally transmitted to mammals and man. Once the rickettsia has broken free from its ancient symbiosis with the arthropod and due to its accidental contact with man, a human rickettsiosis like the deadly spotted fever is born.

The spotted fever group represented by

Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 20, 1944.

the Rocky Mountain spotted fever was for several decades in the past supposed to be limited to the Mountain States only. Since 1930, however, the geographic limits of the disease were widely extended to the east of the Mississippi river where cases were recorded in many states of the Atlantic seaboard, in the South and lately in the Southwest. There was a tendency for a while to distinguish the highly virulent "western" strain with fatality rates as high as 90 per cent from the usually much milder "eastern" strain. This geographic distinction has not proved valid since severe cases were also observed in the East and the South of the country. However, the epidemiological characteristics under which the disease occurs in the various areas of the country are different. It has to be kept in mind that wherever the disease occurs it is always transmitted by the larvae or the adult ticks of the family Ixodidae, but various genera and species of ticks act as transmitting agents according to their geographic distribution. This, in turn,

FIG. 1. Spotted fever. Girl of Family "D," Texas Gulf Coast. Profuse petechial rash, confluent. Necrotic areas under the chin and on the chest, ninth day of disease. (Courtesy of Doctors B. Reading and H. Klint.)

is strictly correlated with the various climatic and physiographic characters of the country; in other words, with the natural environmental factors.

In addition, the habits of the respective tick, particularly as to whether its blood sucking tendency is limited to lower mammals only or will also include man, determine the epidemiological role of the tick in human infections. The first tick incriminated and proved as vector of spotted fever was the wood tick, Dermacentor andersoni, the adult stage of which attacks and infects man. Its distribution covers a large area of several Mountain States and the adjacent portion of Canada and is responsible for the so-called "western" type of the Rocky Mountain spotted fever. Later on, the dog tick Dermacentor variabilis, widely distributed in the east and the south of the United States was proved another natural vector of spotted fever. While the two above tick species—ectoparasites of various mammals (rodents, cattle and dogs)—also attack man, the ubiquitous rabbit tick, Haemaphysalis leporispalustris, maintains the spotted fever rickettsia in nature but does not feed on man.

Finally, and very recently a new vector of spotted fever has been established in Texas. where the "Lone Star" tick, Amblyomma americanum, was found responsible for a severe outbreak in the Gulf Coast area (Anigstein and Bader, 1942, 1943; Reading and Klint, 1943). These observations were corroborated by similar findings in a spotted fever outbreak in Oklahoma (Parker, Kohls and Steinhaus, 1943).

The possibilities of transmission of spotted fever are by no means exhausted by the above enumerated ticks. Another species of Amblyomma, namely, A. maculatum, was found a carrier of a rickettsial infection in Texas by Parker, Kohls, Cox and Davis (1939). This so-called "maculatum fever" proved immunologically closely related to Rocky Mountain spotted fever and evidently belongs to this group.

Several species of Amblyomma, one of them A. cayennense, which is also found in the southwestern portion of Texas, proved vectors of the so-called Sao Paulo typhus of Brazil. This highly fatal disease has been identified with Rocky Mountain spotted fever (Parker and Davis, 1933).

In recent years a new focus of tick-borne spotted fever was discovered in Colombia (South America), and here again A. cayennense was found the natural vector. This so-called "Tobia fever" with a death-rate reaching 95 per cent was identified with Rocky Mountain spotted fever.

The above mentioned spotted fevers are also represented by other members of this group in other parts of the world. The "tick-bite fever" of South Africa is conveyed by the larvae of Amblyomma hebraeum, while the "boutonneuse" fever of Mediterranean countries (Greece, Southern France and Italy) and the "tropical typhus" of Kenya (East Africa) are both transmitted by the brown dog tick, Rhipicephalus sanguineus. The possible role of this tick very prevalent in Texas in the transmission of spotted fever is being investigated by the author and Dr. Madero N. Bader, pointing to the fact that R. sanguineus is also to be incriminated as natural carrier. (Anigstein and Bader, 1943.)[1]

An exhaustive comparative study of various strains of the tick-borne rickettsioses from all parts of the world has been carried

out chiefly by Rocky Mountain Laboratory, Hamilton, Montana. A close immunological relationship between the various members of this group has been shown regardless of place of origin and irrespective of the genus or species of the tick-vector. This phenomenon of considerable biologic interest is of great practical and diagnostic importance enabling us to identify strains recovered from a new tick-vector in any locality.

The recent outbreak of spotted fever in Texas occurred in the central lowland prairie of the Gulf Coast. The semi-tropic climatic conditions and the fertile alluvial soil are responsible for the luxuriant flora of this area. These physiographic factors also account for a rich tick fauna, particularly abundant from May to October.

A trailer camp in a small community of the Gulf Coast at a distance of about twenty miles from the sea-shore, was the scene of the outbreak. The camp occupies a clearing in a heavily wooded area overgrown with brush and grass.

The main occupations of the community are rice farming and ranching. However, many workers came to this locality in connection with the expanding war industry and the population is rapidly increasing. Two families living in trailers under the same oak tree were attacked by the disease in June, 1942. The family "B" with two children came from Louisiana, while the family "D" with four came from Bay City, Texas (12 miles distant). All four children suddenly became ill, the onset of the disease starting abruptly with high fever, vomiting, headache, throat irritation, photophobia, and rash. Children "D," however, showed from the beginning a more severe and rather fulminant course of the disease and died in the Children's Clinic, Galveston, Texas, by the end of the tenth day of the disease, while the other two children recovered.

The following is the brief clinical report of the disease of "D" children from the description given by Drs. Boyd Reading and Hugo Klint (1943).

Both children (brother and sister) were perfectly well until the middle of June, when they developed fever quickly followed by a macular rash which appeared first on the back and then spread to all parts of the body. Other symptoms were vomiting, sore throat and generalized convulsions. The temperature ranged between 104 to 106 F., respiration around 40, and pulse rate up to 160. The most spectacular were the skin manifestations which started with pin-point petechial hemorrhages, rapidly changing into confluent large hemorrhagic areas over the skin of the entire body (Fig. 1). Just before death of both of the children necrotic areas on the buttock of the body of the boy and also on his penis and scrotum, at point skin contacts developed (Fig. 2). Pressure necrosis also developed on the anterior chest wall and chin of the girl.

The postmortem examination of the two victims "D" was performed by Dr. H. Sweets, pathologist, School of Medicine, University of Texas, and the following is a summary based on his report.

The skin of both children showed numerous petechial hemorrhages, some of them confluent. Superficial necrotic areas of the skin were present in both cases. Most of the organs showed petechial hemorrhages, particularly lungs, heart, kidneys. Petechiae were also found in the mucosa of the stomach and urinary bladder. An extensive hemorrhage occurred in the stomach as seen from its coffee-ground content. The pericardial, pleural and abdominal cavities in both cases contained clear, yellowish fluid. The spleen was found enlarged, dark purplish red and firm. The liver showed a purplish and yellow mottling. The tunica vaginalis of the testis was also heavily involved, showing petechial hemorrhages and clear yellowish fluid.

The histopathologic changes were most prominent in the testis, particularly in the tunica vaginalis, where extensive hemorrhages, vascular lesions and infiltrations, mostly of endothelial origin, were noted. In the skin, scattered infiltration with groups of reactive cells composed of leucocytes and mononuclear cells were present. These cells were in places grouped around capillaries forming moderate perivascular infiltrations. There was also a marked infiltration of the connective tissues surrounding the sweat glands.

FIG. 2. Spotted fever. Boy of Family "D," Texas Gulf Coast. Extensive, confluent hemorrhagic areas and necrotic lesion on the buttock, tenth day of disease. (Courtesy of Doctors B. Reading and H. Klint.)

The heart showed a slightly thickened pericardium and perivascular infiltration of monocytic cells. The brain showed little changes; capillaries dilated with blood and swelling of endothelium.

An epidemiologic study of the locality was performed by the reporter and by M. N. Bader. Simultaneously but independently from us, ticks were collected from the same area by T. McGregor, entomologist, State Health Department, Austin, Texas. The area was found most heavily infested with ticks identified as Amblyomma americanum. Three dogs and one cow owned by the local residents were also found infested with A. americanum.

It has to be emphasized that two specimens of A. americanum were picked up from

the mother and brother of the family "D" during the illness of the children. These facts offer, therefore, very strong evidence that the epidemiology of the reported spotted fever cases was strictly connected with A. americanum.

The above considerations were corroborated by the experimental findings with A. americanum collected from dogs and the cow found at the trailer camp. The inoculation of seven pooled adult ticks into guinea pigs produced a febrile disease which conferred a partial immunity to subsequent reinfection with virulent spotted fever. (Anigstein and Bader, 1943).[2]

From each of the two hospital patients 2 cc. of whole blood were inoculated intraperitoneally into each of two pairs of guinea pigs, and two strains of an infectious agent were established in guinea pigs by passages of spleen or brain emulsions.

Rickettsiae were first found in smears made from the liver of the girl about three hours after death. The rickettsiae appeared in the cytoplasm of large mononuclear cells as purple reddish stained coccoid bodies either single or as diplococci. In places they were clustered together.

The two isolated strains were first tested against each other, the less virulent one against the more virulent and vice versa, and proved in guinea pigs tests immunologically identical.

The next problem was to investigate the immunological relationship between our strains and the Dermacentor andersoni strain. A complete immunologic reciprocity has been established between Texas and Rocky Mountain spotted fevers.

Each of these diseases occurs under very different physiographic and epidemiologic conditions, the former being a Dermacentor andersoni strain while the spotted fever reported herewith was carried by Amblyomma americanum. This is another example showing that diseases belonging to the spotted fever group are immunologically identical irrespective of their epidemiology and local geography.

The focal outbreak of spotted fever in Texas was still exceeded by multiple cases in a single household in Oklahoma, Bryan County, where seven cases were observed by Hassler, Sizemore and Robinson (quoted by Parker, Kohls, and Steinhaus, 1943). All members of one family as well as the attending physician bitten by ticks developed spotted fever and three of the cases were fatal. The ticks collected from the premises were all identified as Amblyomma americanum from which spotted fever rickettsia were isolated by guinea pig inoculation. (Parker, Kohls, and Steinhaus, 1943.)

The observations on the new epidemiological aspect of the disease deserve also attention from a wartime angle. The locality in Texas where the outbreak took place is a typical boom town created by the present war conditions, where owing to acute shortage in housing accommodations war workers are compelled to live in wooded areas, thus being exposed to tick bites and to the danger of infection. It is obvious that the expansion of the war industry in similar areas may create during the tick season environmental factors, from which new and serious outbreaks of spotted fever can be expected.

REFERENCES

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3. Burnet, F. M.: Bancroft Memorial Lecture: Rickettsial Diseases in Australia, M. J. Australia, 2:129-134 (Aug. 22) 1942.
4. Parker, P. R., and Davis, G. E.: Further Studies on Relationship of Viruses of Rocky Mountain Spotted Fever and Sao Paulo Exanthematic Typhus, Pub. Health Rep. 48:839-843 (July 21) 1933.
5. Parker, P. R., Kohls, G. M., and Steinhaus, E. A.: Rocky Mountain Spotted Fever; Spontaneous Infection in Tick Amblyomma Americanum, Pub. Health Rep. 58:721-729 (May 7) 1943.
6. Reading, B., and Klint, H. A.: Clinical Observations on Spotted Fever in the Gulf Coast Area of Texas, Texas Rep. Biol. and Med., 1:97-104, 1943.

ABSTRACT OF DISCUSSION

Dr. Ramsey Moore, Dallas: Dr. Boyd Reading, of Galveston, asked me to express his regrets at not being present to open the discussion of this very fine paper. He was most disappointed when circumstances prevented his being here.

Since spotted fever is comparatively rare, and many of us are not familiar with its clinical manifestations, I thought it would be of interest and of some value to use the time allotted to me in a brief resumé of the symptoms and physical findings most often found in this disease.

It is an acute infectious disease, transmitted by ticks, characterized by chills, fever, pains in the bones and muscles, headache, macular eruption, which later becomes petechial in type. The incubation period is from four to eight days with prodromal symptoms of malaise, chilly sensation, anorexia, followed by a definite chill, pain in the bones, muscles, joint and back. The face becomes flushed, accompanied by severe headache, photophobia, dry cough and occasionally epistaxis. The temperature range is from 102 to 104 F. and persists at maximum during the second week of the disease ending by lysis. The rash appears the third, fourth or fifth day, but most often on the third day. The rash appears first on the wrists and ankles, then the back, forehead, arms, chest and abdomen. At first the rash appears as rose-colored macules, not elevated or palpable and they disappear on pressure. After a few days the rash becomes petechial in character and persists on pressure. Cutaneous and subcutaneous hemorrhages may occur during the second wek. Necrosis of the skin, scrotum, prepuce, fingers, toes, vulva, lobes of ears and mucous membrane of the soft palate may occur during the third week. Mild desquamation may occur. The nervous symptoms may be severe: restlessness, insomnia, hyperesthesia, and delirium may occur, but rarely convulsions.

The differential diagnosis demands careful elimination of measles, typhus fever, typhoid fever and cerebrospinal fever.

There is no specific treatment for the disease.

The treatment consists of the methods and medication ordinarily used in the continued fevers.

The vaccine of Spencer and Parker has proved of definite prophylactic value, the immunity lasting about one year.

Lt. Col. O. J. LaBarge, M. C., Station Hospital Camp Livingston, Louisiana: Dr. Anigstein has presented a very timely and comprehensive paper upon a most interesting clinical subject. I have nothing to add to his discussion of the symptomatology, clinical findings and pathology of Rocky Mountain Spotted Fever. Dr. George Baker, of Casper, Wyoming, is recognized as the outstanding clinical authority upon the general subject of Rocky Mountain Spotted Fever, and I would recommend a careful persual of his recent papers in the *Annals of Internal Medicine* and *The Journal of the American Medical Association* to any who are interested in the clinical aspects of this disease. Dr. Baker has proposed the use of a solution of merthiolate and mapharsen in the treatment of these cases, and believes that he has secured favorable results from the use of these drugs. A full discussion of the technique and solutions involved can be found in his clinical papers.

In my own experience during ten years of practice in Salt Lake City, Utah, the use of immunizing vaccines has been of very definite value in preventing serious attacks of Rocky Mountain Spotted Fever in those individuals who must of necessity be exposed to infection by reason of their various occupations. The original vaccine prepared by the United States Public Health Service laboratory at Hamilton, Montana, was a formalized extract of infected ticks and, in some instances at least, rather severe reactions have followed the use of the vaccine. It is my impression that at present, satisfactory vaccine preparations are being produced by chick embryo culture and these vaccines have been responsible for little, if any, reaction as far as the patient is concerned. It must be emphasized that immunizing vaccines are of no value in the actual treatment of clinical cases but are of prophylactic value only. Serious consideration should be given to the feasibility of immunizing individuals whose activities would persumably entail a sojourn for any period of time in tick infested areas.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, New York, 1945. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. James A. Ryan, Covington, Kentucky, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum. Dr. W. H. Browning, Shreveport, La., President; Dr. Alan Cazort, 702 Donaghey Building, Little Rock, Arkansas, Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, San Antonio, September, 1944. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association. Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio, President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Galveston, October. Dr. Q. B. Lee, Wichita Falls, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Titus Harris, Galveston, President; Miss Lucille Allen, Highland Park High School, Dallas, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association, Austin, Sept. 18-19. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Lubbock, October 10, 11, 1944. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society. Dr. F. T. McIntire, San Angelo, President; Dr. Victor Schulze, San Angelo, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society, Austin, June 29. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society, Bryan, July 11, 1944. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers, Abilene, Secretary.

Fourteenth District Society. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

HOSPITALS NEEDING INTERNS AND RESIDENTS

Austin State Hospital, Austin. Capacity 2,810; admissions 613. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Lubbock General Hospital, Lubbock. Capacity 100; admissions 4,587. C. E. Hunt, Superintendent (2 residents).

Methodist Hospital, Houston. Capacity 125; admissions 4,250. Mrs. Josie M. Roberts, Superintendent (1 resident).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Miss Ellen Louise Brient, Superintendent (1 intern now; 1 October 1; 1 January 1, 1945).

Santa Rosa Hospital, San Antonio. Capacity 329; admissions 13,672. Sister Mary of Lourdes, Superintendent (1 resident).

Wichita General Hospital, Wichita Falls. Capacity

135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (1 resident September 1).

CORRECTION

Correction is hereby made of an error appearing in the initials of the Chairman of the Reference Committee on Reports of Officers and Committees, as published on page 104 of the June, 1944, number of the JOURNAL. The initials of Dr. Jackson, Chairman of that Committee, who presented the Report, were erroneously published as "A. A.". Dr. Jackson's initials are "L. B."

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

PACKAGE SERVICE

Packages were mailed from the Library of the State Medical Association to the following during June:

Lieut. L. Villareal, McKinney—*Lungs, anatomy and histology* (5 articles); *Lungs, surgery* (12 articles); *Thorax, wounds and injuries* (18 articles); (3 journals).

Dr. G. W. Cross, Yorktown—*Infections, focal* (23 articles).

Dr. R. L. Powers, San Angelo—*Trichomoniasis* (6 articles).

Medical Library, Parkland Hospital, Dallas—(1 journal).

Dr. Corrine Westphal, Yorktown—*Exophthalmos* (16 articles).

Dr. J. P. Gibson, Abilene—*Ascites* (11 articles).

Dr. W. D. Blassingame, Denison—*Muscles, scalenus* (6 articles).

Maj. D. B. Jones, Camp Maxey—*Pleurisy, with effusion* (3 articles).

Dr. Walter D. Brown, Beaumont—*Undulant Fever, therapy* (15 articles).

Dr. G. T. Singleton, Wichita Falls—*Cesarean Section* (27 articles).

Dr. G. V. Brindley, Temple—*Public Health* (24 articles).

Dr. Philipp Rosenheim, Corpus Christi—*Bursa, inflammation* (11 articles).

Capt. F. J. McCoy, Temple—(1 journal).

Dr. S. Howard Bartley, Hanover, New Hampshire—(1 journal).

Lt. Col. Richard A. Dathe, Camp Maxey—(4 journals).

Dr. S. C. Richardson, Bryan—*Coumarin* (5 articles); *Heparin* (8 articles).

Dr. C. B. Young, Tyler—*Parathyroid, diseases* (18 articles).

Dr. A. L. Ridings, Sherman—*Posture, defects* (10 articles).

Dr. R. D. Falkenstein, Pampa—*Granuloma* (7 articles).

Dr. V. A. Black, Wharton—*Phorias* (10 articles).

Library, Station Hospital, S. A. A. C. C., San Antonio—(1 journal).

Dr. B. M. Works, Brownsville—(1 journal).

Dr. Bruce Allison, Wichita Falls—*Fever, therapeutic* (17 articles).

Dr. Jim Camp, Pecos—*Medicine, progress* (18 articles).

Dr. R. D. Holt, Sr., Cranfills Gap—(1 journal).

Dr. E. A. Weinhemier, El Campo—(1 journal).

Dr. Robert H. McCarty, Lubbock—*Undulant Fever, therapy* (22 articles).

Dr. Thomas E. Cook, Dallas—*Spine, intervertebral disks* (15 articles).

Library, Southwestern Medical Foundation, Dallas—(2 journals).

Maj. Carl L. Wilson, Camp Maxey—*Epididymitis* (12 articles).

Dr. C. D. Lindley, Carrizo Springs—*Arthritis* (26 articles).

Dr. Tom B. Kelly, Orange—*Lambliasis* (16 articles).

Lt. Col. Paul G. F. Schmitt, Temple—(1 journal).

Capt. Herbert M. Levenson, Sheppard Field—*Heat, stroke* (16 articles).

Capt. David A. Nathan, Camp Maxey—(4 journals).

Dr. O. F. Harzke, Comfort—*Uterus, hemorrhage* (12 articles).

Miss Margaret Taylor, Dallas—*Medical Service in Industry* (3 articles).

ACCESSIONS

Baltimore, Williams and Wilkins Company—Mayer: Radiation and Climatic Therapy of Chronic Pulmonary Diseases.

Philadelphia, J. B. Lippincott Company—MacBryde: The Analysis and Interpretation of Symptoms.

Springfield, Illinois, Charles C. Thomas—Rich: The Pathogenesis of Tuberculosis.

SUMMARY

REPRINTS RECEIVED, 510	LOCAL USERS, 25
JOURNALS RECEIVED, 165	BORROWERS BY MAIL, 37
ITEMS TAKEN OUT, 74	PACKAGES MAILED, 41
ITEMS CONSULTED, 77	ITEMS MAILED, 313

TOTAL ITEMS CONSULTED AND LOANED, 464.

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

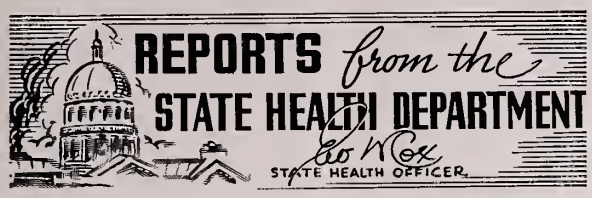
Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during June:

The Lone Star Medical, Dental and Pharmaceutical Association, Hawkins—*Immunization against Infectious Diseases* (available for loan through courtesy of Lederle Laboratories, Inc.); *Pneumonia* (available for loan through courtesy of Lederle Laboratories, Inc.); *Vitamins* (available for loan through courtesy of Lederle Laboratories, Inc.).

Southwestern Medical College, Dallas—*Vitamins* (available for loan through courtesy of Lederle Laboratories, Inc.).

Dr. C. I. Shult, Columbus—*Immunization against Infectious Diseases* (available for loan through courtesy of Lederle Laboratories, Inc.).



The following figures detail communicable disease reports for March and April, 1944, in comparison with the same months, 1943.

	March 1944	March 1943	April 1944	April 1943
Anthrax	0	0	0	0
Chickenpox	1657	1562	2277	1847
Dengue	2	3	10	0
Diphtheria	175	150	130	115
Dysentery	532	892	1173	565
Influenza	5062	6073	3730	4747
Leprosy	0	0	0	0
Leth. Encephalitis	14	8	8	8
Malaria	438	347	415	481
Undulant	30	24	42	15
Measles	6736	4262	17,216	4355
Meningitis	63	77	87	65
Mumps	434	1290	869	1393
Ophthalmia, Neo.	5	6	7	3
Pellagra	75	103	119	92
Pneumonia	1242	1429	1197	1468
Poliomyelitis	11	16	15	5
Rabies	0	0	0	0
Relapsing Fever	1	0	1	2
Scarlet Fever	382	240	654	347
Smallpox	9	3	4	21
Trachoma	6	9	18	6
Tuberculosis	583	472	2249	671
Tularemia	0	2	3	10
Typhoid Fever	29	12	25	16
Para-typhoid	1	3	1	3
Typhus	46	49	85	58
Whooping Cough	706	1739	1192	2633

The measles epidemic continues to remain far above the seven-year median with 17,216 cases reported in April, 1944. This exceeds the annual total for 1943. The cumulative total for the year to date is 28,372 cases, as compared with 10,509 for the same period last year.

There is a marked increase in the incidence of scarlet fever. Typhoid fever reflects a rapid rise in reported cases. There were more cases of typhoid fever reported for the first quarter of 1944 than for any of the past three years. Immunization against typhoid fever should be stressed. The problem of infectious diarrhea and dysentery should receive full diagnostic consideration with reporting cases. At present the totals for dysentery include bacillary and amebic infections, Salmonella gastro-intestinal upsets, staphylococcus intoxications, and the diarrheas.

NEWS

The American Society of Anesthetists will hold its 1944 meeting in Houston in November, advises the Houston *Post*. Dr. Russell F. Bonham, Houston, is chairman of the committee on arrangements. An attendance of approximately 150 is expected, representing all sections of the United States. Dates that have been suggested by the arrangements committee are November 9 and 10, which are yet to be approved by officials of the society.

Dr. Harry Slocum, Galveston, is co-chairman of the arrangements committee, and the president is Dr. E. A. Rovenstine, New York City. This will be the first meeting of the Society in the South. The two previous conferences were held in New York and Chicago.

The Texas Branch of the Society of American Bacteriologists held a one-day meeting in Austin, May 20, informs the Austin *American-Statesman*. During the morning session bacteriologists from Baylor University College of Medicine, Houston; Southwestern Medical College, Dallas; the University of Texas School of Medicine, Galveston; the Laboratories of the State Health Department; and the Laboratories of the Eighth Service Command, presented papers on leprosy, allergy, insect infestation, typhus, Bullis fever, streptococcus and other bacteriological studies.

Dr. J. D. Weaver, Dr. W. R. Cooke and Bacteriologist C. E. Lankford of Galveston, presented a paper on the use of penicillin in venereal diseases, pointing out the causes of failure in cases in which the desired results are not obtained.

L. L. Lankford and Priscilla Kringle, students in the University of Texas School of Medicine, Galveston, read a paper on "Selective Bacteriostatic Agents for Culture Diagnosis of Gonorrhea," which also dealt with penicillin.

Col. A. R. Thomas, M. C., and Lt. Col. Max Levine, sanitary corps, Brooke General Hospital, Fort Sam Houston, read a paper on "Some Laboratory Observations with Penicillin."

Gerald Young of the University of Texas School of Medicine, read a paper on "Observations on Penicillin Resistance."

During a business session following the scientific program, the following officers were elected: Dr. O. B. Williams, University of Texas School of Medicine, president; Dr. MacDonald Fulton, Southwestern Medical College, vice-president; Dr. Gordon Worley, Jr. ,University of Texas, secretary; and Mrs. E. N. B. Cook, treasurer.

T. C. U.-Harris Memorial Methodist Hospital School of Medical Technology has been selected by the Commonwealth Fund of New York for a grant to be used in postgraduate training of medical technologists from Oklahoma, it was announced in a statement received recently by Dr. John J. Andujar, pathologist and medical director.

Scholarships for the technologists will be granted by the Division of Laboratories, Oklahoma Department of Health. Selected medical laboratory technologists from hospitals in Oklahoma will be granted a one-month leave of absence to take these postgraduate studies in the Fort Worth School. The plan was inaugurated on an experimental basis but now is being extended.—*Fort Worth Star-Telegram.*

San Antonio Drive Against Dengue.—On May 19, the city of San Antonio conducted an extended drive against the Aedes Aegypti mosquito, carrier of dengue fever, in which all elements of the population took part, including elementary school children. Following a conference of members of the San Antonio Board of Health and the head of the San Antonio school system, pupils of elementary schools were released from class work an hour off schedule in order that they might take part in elimination of breeding places of the mosquito carrier of dengue fever. Many organizations in San Antonio took part in the campaign so that the premises of every home and yard in San Antonio would be cleared of any water-containing receptacles in which mosquitoes breed. The city had been charted and each block assigned to some responsible organization.

The medical profession of San Antonio took an important part in the campaign, members of the Bexar County Medical Society having delivered educational addresses in all sections of the city on methods of spread of dengue fever and its prevention. Downtown areas were freed of the mosquito pest by employees of U. S. Public Health Service, coöperating in the campaign.—*San Antonio Express.*

Tuberculosis Association Active.—The Galveston Anti-Tuberculosis Association announced that during a period of six weeks in furtherance of the early spring diagnosis campaign, a total of 1,198 x-ray examinations were made, according to the

Galveston *Tribune*. In these examinations, 16 active cases of tuberculosis were found, 16 arrested cases, 7 suspects, and 7 unclassified conditions. During the month of April alone, 887 roentgenograms were made, 321 of which were of food handlers, 136 school children, and 430 in connection with early case finding campaign. Of this number, 9 active cases of tuberculosis were found, 7 arrested and 3 questionable. Of the 311 other x-ray examinations made, 138 were of food handlers and 101 school chidren. In this group were 7 active cases of tuberculosis encountered, 9 arrested cases and 4 questionable. All x-ray plates were interpreted by Dr. W. S. Wallace of the Radiological Department of John Sealy Hospital, Galveston.

The Big Springs *Herald* advises that the Ector-Midland-Howard counties health unit reports a 6.7 per cent positive reaction to tuberculin tests of Big Spring and Howard County school children, 2,837 of whom received such tests. Of 384 positive reactors, 334 had submitted to x-ray examinations. Of this number, 12 were found to have active tuberculosis, and several were of doubtful character. A significant finding was that 17.5 per cent of Latin-American students and 11 per cent of Negro students were positive reactors, which findings were credited to substandard living conditions of these people.

Gifts to Baylor University College of Medicine.—The Houston *Post* reports that H. R. Cullen, Houston oilman and philanthropist, and his three daughters each gave $10,000 June 10 to the $500,000 building fund of Baylor University College of Medicine. The daughters are Miss Wilhelmina D. Cullen, Miss Margaret R. Cullen and Mrs. Agnes C. Arnold, all of Houston. The medical college will be built on the campus of the Medical Center in Hermann Park after the war. The center was donated by the late M. D. Anderson. After the war, when building restrictions have been lifted, the University of Texas School of Dentistry and the M. D. Anderson Hospital for Cancer Research will also be located at the Center.

Southwestern Medical College Approved.—The Council on Medical Education and Hospitals of the American Medical Association recently approved the Southwestern Medical College, Dallas, informs the Dallas *News*. The College graduated its first class in March, with sixty-one members, forty-three of whom received commissions in the medical corps of the Army and Navy. Enrolled in April for the current semester were more than 200 students, of whom 110 were Army Trainees and 31 Navy Trainees.

University of Texas News.—The University of Texas Board of Regents was recently offered a $150,000 estate at Galveston, for use as a convalescent home, by Mr. and Mrs. Maco Stewart, states the Austin *American*. The offer has been taken under advisement, and Mr. and Mrs. Stewart were invited to meet with the Board at its June session, which will be held in Galveston. The Stewart estate, occupying the highest knoll on Galveston Island, includes a concrete and steel residence and a cedar log guest house. It has its own auxiliary power plant, a deep water well and two lakes. There is a herd of Jersey cattle, which the regents understand would go with the estate if it is used to accommodate crippled children after they no longer require hospitalization. Facilities of the estate would easily be sufficient for forty children, it was reported, and their maintenance per day would cost less than if they remained in the hospital while convalescing.

The Board of Regents were invited to attend the medical school graduation June 24, which coincided with the Board meeting. Of the June medical class, 50 graduates will appear in uniform as medical corps officers of the Army, and 28 as medical officers in the Navy. They will be sworn in during the ceremony. The class also includes 13 civilians.

The Board, at its meeting May 26 in Austin, authorized the following changes in the staff of the medical school: Dr. John Waterman as lecturer in child psychiatry, to serve without salary; Gerald Young, as assistant clinical basteriologist in the department of bacteriology, a new position. Mr. Young had previously been a technician in pathology. Dr. W. A. Selle, was promoted to professor of physiology from the position of associate professor, and Dr. A. E. Fuld as instructor in radiology. The appointment of Dr. Larry L. Calkins as instructor in internal medicine was cancelled since Dr. Calkins has been called to active duty in the armed forces.

Commencement exercises were held June 24 at Stephen F. Austin Junior High School, with Dr. Homer P. Rainey, president of the University, conferring degrees on ninety-six members of the graduating class of the School of Medicine, and forty-seven in the graduating class of the John Sealy College of Nursing.

A new class of freshmen entered the University of Texas School of Medicine on June 28, according to Dr. Chauncey D. Leake, vice-president and dean. Dr. Leake stated that the curriculum is being arranged so that it will be more closely aligned to that of other medical schools so that graduates can be assured of internships. Since the University of Texas was one of the first medical schools in the country to start the accelerated program, the courses have heretofore been somewhat out of line with other medical schools. Commendation was given to the curriculum committee for its work in this particular An important achievement called attention to was the establishment of preceptorial training for fourth-year students, which has been made possible through hospitals of the state, which have been rated suitable for such training by the Council on Medical Education and Hospitals of the American Medical Association. The most urgent need of the medical school at present is more beds for sick patients for clinical teaching, according to Dr. Leake.

U. S. Naval Hospital Approved for Houston.—Construction of a 1,000 bed naval hospital in Houston, to cost between $5,000,000 and $6,000,000 has been recently approved, informs the Houston *Chronicle*. The hospital will be located on a tract owned by the Hermann Estate, near the 134-acre tract in Hermann Park, recently acquired by the M. D. Anderson Foundation from the City of Houston for use as a Medical Center. The hospital will be fireproof and of permanent construction. It will provide 500 permanent beds and 500 temporary beds. It will be staffed by fifty naval officers, 100 naval nurses, 320 hospital corpsmen and some civilian personnel. It will be one of the largest naval hospitals in the United States. Other major naval hospitals are in Norfolk, Virginia; New York City, Philadelphia, San Diego, Chicago, and Washington, D. C.

An International Health Conference was held May 30, 31 and June 1, at El Paso, as the second annual conference of the Border Public Health Association, advises the El Paso *Times*. Officials of the U. S. Public Health Service and Mexican Health Departments were in attendance. Major subjects discussed dealt with sanitary engineering, tuberculosis, venereal disease, and international control of communicable diseases. Texas physicians contributing the program included Dr. George W. Cox, State Health Officer, who spoke on "Texas' Plan for Tuberculosis Control of Border Towns," and Dr. Howard E. Smith, of the State Health Department, who discussed "The Latin-American Tuberculosis Problem in Texas." Dr. Smith is director of the tuberculosis division of the Texas State Depart-

ment of Health. Miss Margaret Taylor, assistant nursing consultant, U. S. Public Health Service, Dallas, read a paper on "The Public Health Nursing Aspect of Tuberculosis Control." Papers were presented by outstanding workers in public health from Mexico and California.

American College of Chest Physicians, at its annual meeting in Chicago, June 10 and 12, elected Dr. Charles M. Hendricks of El Paso, as president-elect. Dr. Hendricks was one of the organizers and a charter member of the organization. He was the first editor of *Diseases of the Chest*, official journal of the organization, and served in that capacity from 1935 to 1937. He has been a member of the editorial board of that journal for the past ten years, and during the past four years has served as chairman of the council on military affairs and public health of the college. At the time of his election to the office of president-elect, he was serving as regent for the State of Texas and as a member of the executive council. Dr. Hendricks was also the first president of the Texas Chapter of the American College of Chest Physicians.

Dr. Charles J. Koerth, formerly medical superintendent of the Woodman of the World Memorial Hospital, San Antonio, and now associated with Dr. S. E. Thompson, Kerrville, was appointed as the regent for the College from Texas to succeed Dr. Hendricks.

Dr. J. B. McKnight, superintendent of the Texas State Tuberculosis Sanatorium, has been appointed governor of the College for Texas.

Dr. Alvis E. Greer, Houston, was elected chairman of the National Council of the College Chapter Officials, which met at Chicago June 12.

A **Training Course for Record Librarians** was recently established at the John Sealy Hospital, University of Texas School of Medicine, Galveston, announces Dr. Chauncey D. Leake, Dean. The school will be under the direction of Miss Margaret McArdle, who is in charge of the record library of the John Sealy Hospital. Inquiries regarding the course should be addressed to Miss McArdle.

The Baruch Committee On Physical Medicine recently announced the names of nineteen scientists who will act on the organization's scientific advisory committee and the committee on war and postwar physical rehabilitation and reconditioning. Dr. Frank H. Krusen and Dr. Ernest J. Jaqua will serve as chairman and secretary of the two committees. The officers of the committee, which was created by a gift of $1,100,000 from Bernard M. Baruch, are at 597 Madison Avenue, New York City. The only Texas member on the scientific advisory committee is Dr. Chauncey D. Leake, vice-president and dean, University of Texas School of Medicine, Galveston, who will represent education and physical medicine in undergraduate medical schools on the committee.

The American Board of Ophthalmology announces a change of address to Cape Cottage, Maine. It further announces that 1945 examinations are scheduled to be held at Los Angeles in January; New York in June; and Chicago in October. The deadline for application for the Los Angeles examinations is October 1; for the New York City examinations is December 1; and for the Chicago examinations April 1. Exact dates of the examinations will be announced later, and all the dates are contingent on war and transportation conditions. Those interested in taking examinations should write at once for application blanks to the American Board of Ophthalmology, Cape Cottage, Maine.

The American Board of Obstetrics and Gynecology held an annual meeting June 7 to 13 at Pittsburgh, Pennsylvania, at which time ninety-three candidates were certified. A number of changes were made in regulations and requirements of the Board, designed to aid both civilian as well as candidates in the service. Among these is the waiver, temporarily, of requirement for physicians in the Army or Navy of membership in the American Medical Association. It is provided, however, that a statement of intention to join be made promptly upon return to civilian practice. The Board also accepted a period of nine months as an academic year in satisfying requirements for certain years of training, which provision is only for the duration. Beginning with the next written examination, to be held in February, 1945, case records submitted will be considered incomplete if obstetric reports do not include measurements either by calipers and, as indicated, by acceptable x-ray pelvimetry.

Prospective applicants or candidates in military service are urged to obtain from the office of the Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania, a copy of the "Record of Professional Assignments for Prospective Applicants for Certification by Specialty Boards," which will be supplied upon request. Applications and bulletins of detailed information regarding the Board requirements will be mailed upon request to the Secretary's Office. Applications must be in the Office of the Secretary by November 15, 1944, ninety days in advance of the examination date.

The American Congress of Physical Therapy will hold its twenty-third annual scientific session September 6, 7, 8 and 9, inclusive, at the Hotel Statler, Cleveland, Ohio. The annual instruction course will be held from 8:00 to 10:30 a. m., and from 1:00 to 2:00 p. m. during the days of September 6, 7 and 8. The scientific and clinical sessions will be given on the remaining portions of these days and evenings. All of the sessions will be open to members of the regular medical profession and their qualified aids. Information concerning the instruction course and program of the convention proper may be secured by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago 2, Illinois.

The Bacon Library of the American Hospital Association, 18 East Division Street, Chicago 10, announced wide-spread interest of hospitals and hospital administrators as indicated by requests for printed material on personnel relationships. The Library has received requests from all parts of the United States for material on personnel management, volunteer workers, and public relations. Material is available in the Library on almost every aspect of approximately 65 major subjects important in hospital administration and management, such as small hospital construction, the dietary department, out-patient department, laundries, sterilization, care of patients' property, ambulance service, hospital and medical economics, occupational therapy, and hospital decoration. Material is available for a three-weeks period, with opportunity for extension of time, and the only cost is that of return postage.

National Foundation for Infantile Paralysis Grants.—The National Foundation for Infantile Paralysis announced twenty-seven grants totaling $1,128,770.00 recently for intensifying and broadening the nation-wide fight against infantile paralysis. The grants were made to leading universities, laboratories and other organizations throughout the United States. All of the grants made were recommended by medical advisory committees of the Foundation at their semi-annual meeting on May 15 and 16, and later approved by the Board of Trustees. All grants made will be operating by July 1. Two long-term grants, each covering a five-year period, totaling $495,000, are for the purpose of improving knowledge in the field of physical medicine. These two grants provide for the establishment of units for

research in physiology as related to physical medicine. The larger of the units will be at the medical school of the University of Minnesota, which has received a grant of $520,000 for the purpose. The original tests of the Kenny method were made at this University, financed by the National Foundation, which has maintained a Kenny Training center there since that time. The other unit will be established at Northwestern University School, with a grant of $175,000. This was one of the first institutions to establish a department of physical medicine and to encourage research in this specialty. The third long-term grant, for $325,000, was made to the University of Michigan School of Public Health at Ann Arbor to finance and operate an expanded virus study unit.

Military Personals

Dr. Virgil S. Rabb, former Austin physician, was recently promoted to the rank of Lieutenant Colonel. He is chief of medical service at an Army hospital, and has been stationed in India for the past fifteen months, advises the Austin *American-Statesman.*

Captain William W. Brown, Jr., formerly of Dallas, now in Italy with the Baylor Medical Unit, was recently awarded the Bronze Star by Gen. Mark W. Clark for heroic achievement in action, states the Dallas *News.* He had previously been awarded the Purple Heart.

Dr. Raul C. Soto, El Paso, has been commissioned Lieutenant (jg) in the U. S. Naval Reserve and expects to be ordered to immediate active duty.

Dr. Mario J. Cuen, formerly with the El Paso City-County Hospital, El Paso, received his commission as First Lieutenant in the U. S. Army Medical Corps, and has reported to Carlisle Barracks, Pennsylvania, for active duty.

Dr. George E. Rohrer, Houston, has been commissioned First Lieutenant in the U. S. Army, and will report to Carlisle Barracks, Pennsylvania, July 5.

Dr. Henry Harrison Austraw of Houston, recently received a commission as captain in the medical corps of the U. S. Army, and will report for active duty in July.

Personals

Dr. Claude C. Cody, Jr., Houston, President-Elect of the State Medical Association, was re-elected chairman of the Board of Southwestern University, Georgetown, for the eleventh consecutive year, informs the Houston *Press.* Dr. Cody is a graduate of the class of 1905 of that University.

Dr. H. F. Connally, Waco, President of the State Medical Association, recently addressed the American Legion convention at Palestine, states the Palestine *Herald.* Dr. Connally was introduced by Dr. R. Q. Hunter of Palestine, a Legionnaire.

Dr. Connally, in his address, stated that the medical profession is interested in insurance plans to be handled by insurance companies, on an equitable schedule of fees, that will insure medical service to all income groups. He pointed out the evils of the Wagner-Murray-Dingell bills pending in Congress. While in Palestine, Dr. Connally was a guest of Dr. A. L. Hathcock, Councilor of the Eleventh District, State Medical Association, who has been directing a public sentiment campaign in that area against the Wagner-Murray-Dingell Bill.

Dr. Chester P. Brown was recently appointed medical director of the Gulf Health Department at El Campo, informs the Bay City *Tribune.*

Dr. W. V. Ramsey of Abilene, is taking postgraduate work in Chicago, informs the Abilene *Reporter-News.*

Dr. J. M. Wattam of Wellington, has returned to practice after five weeks' postgraduate study in St. Louis, Missouri, states the Wellington *Leader.*

Dr. T. Leland Denson of Cameron, is taking postgraduate work in Chicago, advises the Cameron *Enterprise.*

Dr. Paul M. Rattan was recently elected medical director of the Great National Life Insurance Company, Dallas, succeeding the late Dr. D. R. Murchison.—*Dallas News.*

Dr. Jack R. Ewalt, associate professor of neuropsychiatry, University of Texas School of Medicine, was recently elected a Fellow of the American Psychiatric Association, informs the Galveston *Tribune.*

Dr. A. L. Delaney of Liberty, until recently a major in the medical corps of the Army of the United States and who served one year in China with the unit known before the war as "Chennault's Flying Tigers," was recently host at a Houston club dinner honoring *Dr. J. T. Tadlock* of Dayton and *Dr. A. R. Shearer* of Mount Belvieu. Dr. Tadlock has practiced forty-two years at Dayton, and Dr. Shearer forty-six years at Mount Belvieu. Dr. Judson L. Taylor praised the veteran physicians and expressed the wishes of the other guests that they might serve many more happy years in medicine. Dr. Delaney was recently honorably discharged from the service.

Dr. J. J. Truitt of Houston, was recently a victim of theft when his automobile, instrument case, and blood pressure apparatus was stolen from in front of St Joseph's Infirmary while he was visiting patients during the morning, states the Houston *Press.*

Dr. W. L. Kitchens, formerly director of the McKinney-Collin County Health Unit, was recently named director of the San Angelo-Tom Green County Health Unit, states the San Angelo *Times.*

Dr. A. L. Scheff of Gilmer, was recently appointed director of the Alice-Jim Wells County Health Unit, reports the Alice *Echo.* Dr. Scheff was formerly director of the Upshur County Health Unit.

Dr. A. I. Folsom of Dallas, was the principal speaker at the annual banquet of Alpha Omega Omega, honorary medical fraternity at the Buccaneer Hotel, June 2, states the Galveston *News.* The banquet was attended by a large number of alumni from the University of Texas School of Medicine.

Dr. Steve F. Turner of El Paso, was recently elected president of the El Paso Kennel Club.—*El Paso Times.*

Dr. J. C. Davis, Rule, a former member of the Legislature, was recently appointed a member of the State Board of Health by Governor Stevenson, to fill the vacancy created by the resignation of Dr. S. E. Thompson, Kerrville.

Dr. E. S. Freeman, former director of the Gulf Health Department, El Campo, was recently named director of the Abilene-Taylor County Health Unit, filling the vacancy created by the death of Dr. R. E. DeWitt.—*Abilene Reporter-News.*

Members of the El Paso County Medical Society and the Tuberculosis Society of El Paso County honored the memory of the late *Dr. R. B. Homan, Sr.*, of El Paso, June 11, by dedicating the Homan Solarium to him at the El Paso City-County Hospital. The solarium was built with funds supplied by friends of Dr. Homan when, at the time of his death, his family requested that money ordinarily spent for flowers be donated instead to the Tuberculosis Society for the perpetuation of his work.—*El Paso Herald-Post.*

Dr. J. M. Robison, Houston, was elected June 9 to Fellowship in the American Laryngological, Rhinological and Otological society at the annual meeting of that organization in New York City.

Dr. George McReynolds, Galveston, was elected to Fellowship at the annual meeting of the American Broncho-Esophagological Association, recently held in New York.—*Houston Post.*

Dr. V. C. Baird, Houston, was recently elected chief physician of the Humble Oil and Refining Company, filling the vacancy caused by the death of Dr. Charles M. Aves, April 26, organizer of the medical department of the Humble Oil Company and its head for twenty-four years. Dr. Baird had served as assistant chief of the company for the last nine years.—*Houston Post.*

Mrs. H. L. Wilder, wife of Dr. H. L. Wilder of Pampa, died May 24, 1944, following a brief illness.

MARRIAGES

Dr. Harry Hall Womack, Fort Worth, and Miss Margaret Harris, Galveston, were married May 22, 1944, at Trinity Episcopal Church, Galveston. Dr. Womack received his M. D. degree from the University of Texas Medical School where he was a member of the Alpha Kappa Kappa fraternity.

SOCIETY NEWS

Angelina County Society

April 10, 1944

(Reported by B. H. Denman, Secretary)

Experiences in the Pacific Theatres of War—E. G. Taylor, D. D. S.

Angelina County Medical Society met April 10, with six members, the nurses of Angelina County Hospital, and four guests present.

E. G. Taylor, D. D. S., gave an interesting account of his experiences in the battles of Tarawa and Kiska. Many questions were asked and his talk was thoroughly enjoyed by all present.

May 8, 1044

Case Reports—B. H. Denman, L. H. Denman, P. C. Clements and T. A. Taylor.

Angelina County Medical Society met May 8, with seven members and one visitor present at Lufkin. The scientific program consisted of interesting case reports. B. H. Denman presented one report; two cases were reported by L. H. Denman, and one case report was given by P. C. Clements and T. A. Taylor.

The Society voted to have a dinner June 10 at the Angelina Hotel, with two guest speakers presenting the scientific program.

Baylor-Knox-Haskell Counties Society

May 16, 1944

Baylor-Knox-Haskell Counties Medical Society met May 16, in the office of Dr. D. C. Eiland, Munday, with ten members and one guest present. J. W. Whiting, Wichita Falls was guest speaker.

T. S. Edwards, Knox City, delegate to the State Association meeting, gave a report of the proceedings of the House of Delegates meeting at Dallas, May 10 and 11.

Brazoria County Society

May 25, 1944

(Reported by Brooks Stafford, Secretary)

Peridontia: Its Cause and Treatment—W. J. Vogan, D. D. S., Alvin.

Brazoria County Medical Society met May 25, at the Community House, Angleton, with twelve physicians and five dentists present. Following an interesting paper by W. J. Vogan, D. D. S., an enthusiastic discussion was had.

The secretary was instructed to write a letter to the wife of each member of the Society, requesting a vote on whether or not a Woman's Auxiliary should be organized.

Dallas County Society

May 25, 1944

(Reported by Jack G. Kerr, Secretary Pro Tem)

Newer Chemotherapeutic Drugs—Donald Slaughter, Dallas.
Dangers of the Sulfa Drugs—Howard Shane, Dallas.
Clinical Possibilities of Chemotherapy—Arthur Schoch, Dallas.

Dallas County Medical Society met May 25, in the auditorium of the Medical Arts Building, with forty members present.

David W. Carter, Jr., president, presided and appointed Jack G. Kerr as secretary pro tem, in the absence of the secretary. The scientific program, consisting of a symposium on chemotherapy, was given as indicated above.

The address of Howard Shane on dangers of the sulfa drug was limited to complications in which the urinary tract is involved.

The lecture of Dr. Schoch on clinical possibilities of chemotherapy consisted of a discussion regarding the use of penicillin in the treatment of syphilis.

J. B. Howell, in discussing the symposium, described skin reactions incident to topical application of sulfa drugs. The symposium was further discussed by Dayton McBride and Eugene Wasserman.

Harry E. Nelson and Gregory J. Nordenbrock were elected to membership by application.

J. A. Simpson was elected to membership by transfer.

Gray-Wheeler Counties Society

May 18, 1944

(Reported by H. L. Wilder, Secretary)

Acute Cardiac Conditions as Seen in General Practice—R. Malcolm Brown, Pampa.
Treatment of the Ambulatory Chronic Cardiac—Will S. Horn, Fort Worth.

Gray-Wheeler Counties Medical Society met May 18, at the Snyder Hotel, Pampa, with twenty physicians present. Following a "Dutch Lunch" the scientific program as given above was carried out. The papers presented were interesting and received an extended discussion by those present.

Hidalgo-Starr Counties Society

May 11, 1944

Office Treatment of Rectal Disease—Andrew Sonda, Pharr.

Hidalgo-Starr Counties Medical Society met May 11, at the Hotel Edinburg. Following a dinner served to members of the Society and the Auxiliary, the scientific program as given above was carried out.

Jefferson County Society

May 29, 1944

(Reported by L. R. Byrd, Jr., Secretary)

Cardiac Emergencies—B. B. Elster, Port Arthur.

Jefferson County Medical Society met May 29, at St. Mary's Hospital, Port Arthur, with I. T. Young, president, presiding.

The interesting and instructive paper on cardiac emergency presented by B. B. Elster was discussed by I. T. Young, Taylor Walker, P. T. Petit, H. C. Bevil, and J. C. Crager.

W. D. Brown, alternate delegate to the State Medical Association, gave a report for the Jefferson County degelates on the proceedings of the House of Delegates in Dallas, May 10 and 11. The report dealt principally with the activities of the Public Relations Committee and the raising of the State Association dues to $20.00 for 1945.

W. D. Brown moved that the secretary be instructed to write a letter of appreciation to Dr. S. E. Thompson of Kerrville, for services he had rendered the Jefferson County Medical Society, and the motion, duly seconded, carried.

On motion of James Makins, the Society voted to pay the expenses of W. D. Brown, L. C. Heare and L. C. Powell as delegates to the State Medical Association meeting in Dallas.

A letter of greetings and report from Lt. Col. L. C. Heare, delegate to the State Association meeting, now stationed at Camp Howze, Texas, was received.

Secretary L. R. Byrd, Jr., read a letter from the

Judge of Jefferson County in which it was requested that a proposal recently presented to the commissioners' court of Jefferson county, that the present Jefferson County Health Unit be extended and full-time public health officer and a board of health be appointed, be presented to Jefferson County Medical Society for consideration and recommendations.

E. S. Osborne, Jr., director of the Jefferson County Health Unit, was asked by President I. T. Young to discuss the matter. Dr. Osborne stated that a program was adopted several years ago in which it was agreed that the preventive medical measures would be turned over to the county health unit. Since then, Dr. George W. Cox, State Health Officer, had developed a standard plan for the operation of county health departments under the direction of directors of county health units. All of the counties in the state are now coöperating in this plan with the exception of a few, among which is Jefferson County. This program had its beginning in the treatment of venereal diseases of indigents. The State Health Department has been contributing $60,000 annually to the Jefferson County health program. It is the opinion of the State Health Officer that there is a duplication of effort arising from lack of organization of the county health program. The county commissioners were recently advised by a representative from the State Health Department that unless the county coöperates in organizing the county health program in coöperation with the county health unit, the State would withdraw financial support from the county health program of Jefferson County. Dr. Osborne stated that apparently the county judge had misunderstood the proposal with reference to the formation of a board of health for the county, in that it was not intended to be a full-time board but a part-time board to act in an advisory capacity.

B. W. Wood stated that the State wants a board composed of representatives of the county medical society and dental societies, the health departments of Beaumont and Port Arthur, the Jefferson County Health Department and lay members. This board would then act in an advisory capacity to the director of the county health unit.

W. A. Smith, in discussing the proposal, stated that he thought the basic idea was good, namely, to correlate the various aspects of public health into one well organized program. He offered the suggestion, however, that it might be better to have a north county and south county health unit, each served by an advisory board of health, and that these two boards together could function more easily in directing public health measures. He pointed out the need for determining some definite policy, and that the advisory boards must inform the director of the public health program regarding policies to be carried out. Since the State furnishes $60,000 annually, he thought the State expected the county to furnish a similar sum for conducting the public health program, and that the State Health Officer wanted a correlated program of public health work to be carried out under one head or one group, such arrangement to be a prerequisite for the State continuing its part in financing the program.

W. T. White stated that he thought the proposal of the State to compel the county to get in line or suffer withdrawal of financial support was another step in regimentation, or the establishment of a board of health by law. Such proposal would place all county health projects under control of the State Health Department. He expressed the opinion that the proposal should be studied in written form very carefully before the Society expressed any opinion regarding it.

W. A. Smith pointed out that at a meeting several months previously it was voted that consideration would be given only on written proposals regarding county public health problems, and that such written proposals should be given study for a period of thirty days before any resolution concerning them could be passed.

M. F. Raine expressed the opinion that public health programs of the State and Federal governments are not in competition with private practice of medicine, and that the U. S. Public Health Service has been against regimentation.

H. G. Bevil asked why the county health unit had not come to the county medical society with the proposal before taking the matter up with the county commission. He also stated that he had never seen a State or Federal agency in public health that was not dictatorial in its conduct.

E. C. Ferguson stated that the movement was not a local affair; that it was national in scope in that a Federal government was involved and the entire movement was one under which a structure of Federal controlled socialized medicine might easily be built. In his opinion, Jefferson County should control its own public health affairs and the Society should study and thoroughly understand the significance of the proposal and what is entailed in the project that might mean relinquishing independence in the practice of medicine. He moved that the proposal in written form from the county health unit and the county judge be referred to the public health and legislative committee with direction to report later to the Society with recommendations, such recommendations to be printed and distributed to each member prior to consideration by the Society. The motion was seconded by W. D. Brown and carried.

Resolutions of sympathy were adopted on the death of Joseph A. Broussard.

A letter from the M. D. Anderson Hospital for Cancer Research, regarding the method of admission of patients was read.

Smith County Society

June 1, 1944

(Reported by W. N. Bailey, Secretary)

Penicillin—Lt. Col. Wm. O. Johnson M. C., Chief Surgical Service, Harmon General Hospital, Longview.

Postwar Medical Problems with Special Reference to Imported Diseases—Col. Alexander Marble, M. C., Chief, Medical Services, Harmon General Hospital, Longview.

Smith County Medical Society met June 1, at the home of Dr. Thomas M. Jarmon, Longview, where members and the medical staffs of Harmon General Hospital, Longview and Camp Fannin Station Hospital, Tyler, were entertained with a barbecue. Fifteen members of the staffs of Harmon General Hospital and Camp Fannin Station Hospital, thirteen members of the Society, and nine other guests attended. Following the barbecue on the lawn, the scientific program as given above was carried out.

PENICILLIN. Colonel Johnson: 1. Penicillin can be administered intravenously, intramuscularly, intrathecally, and locally. The indications for each of these routes have been established and the preference in most instances is repeated intramuscularly injections.

2. The untoward complications noted have been limited to urticaria and other reactions suggesting an analogy to serum sickness. The reactions are transient during therapy and there is no permanent sensitization. No significantly harmful effects have been observed.

3. Pencillin is an effective antibacterial agent in the treatment of acute infections caused by staphylococci, hemolytic and nonhemolytic streptococci, mixed infections due to gram positive bacteria and actinomycosis. The gram negative diplococci are susceptible to treatment. Gram negative bacilli are resistant. Mixed infections may be benefited through the effect on the susceptible bacterial species. Malaria has not been controlled by penicillin.

4. An intensive investigation of the clinical status of patients with chronically infected gunshot fractures has revealed a major deficiency of red blood cells and hemoglobin. Positive nitrogen balance may be established in the presence of continuing infection, but the synthesis of new tissue proteins and the regeneration of red cells and hemoglobin are dependent on control of the infection. The dramatic effectiveness of penicillin is rapidly establishing this phase of convalescence is added proof of the unique position of the drug among antibacterial agents. The normal rate of hemoglobin regeneration is not surpassed, and whole blood transfusion therapy is necessary.

5. The polymicrobial character of septic gunshot fractures has been defined in terms of putrid wound infection, staphylococcic infection, hemolytic streptococcus infection and pyocyaneus infection. Staphylococcus and streptococci are rapidly responsive to therapy. Anaerobic cellulitis due to the proteolytic bacteria of putrid wound infection responds to penicillin, but the bacteria may persist in the presence of devitalized tissue or wound exudates. B. pyocyaneus is not susceptible to penicillin and is relatively unimportant as a single pathogen in the surgical management of the wound.

6. Penicillin therapy permits a direct and immediate surgical approach to the management of septic gunshot fractures. Its role in this regard is analogous to the use of vitamin K for patients with obstructive jaundice. Such a concept emphasizes the limitations of penicillin therapy and designates the supplemental position of penicillin in the overall surgical program.

Penicillin therapy is an adjunct to but not a substitute for good medical diagnoses and proper modern surgery.

Postwar Medical Problems With Special Reference to Imported Diseases. Colonel Marble: There has been much concern in various quarters that serious diseases, chiefy tropical, would be introduced into the United States by infected soldiers returning from all parts of the world. The problem is of importance to the civilian physician not only in that he may be called upon to recognize and treat diseases with which he is not familiar but also in that discharged soldliers and their families will turn to him for information and advice regarding this or that disease.

Although the matter is of great importance and well worth discussion, it is the opinion of well-qualified workers that much of the concern among civilians, heightened by articles in lay publications, is ill-founded and unwarranted. The belief that the dangers have been magnified is based upon the following considerations: (1) The medical departments of the armed forces have long recognized the possibilities and have taken and are taking extraordinary measures to protect their personnel by the known effective means of prophylaxis, such as universal, compulsory immunization and rigid sanitary measures. (2) Persons in the military services developing communicable diseases are promptly isolated and treated. Perhaps never before in history has the truly early detection and treatment of disease been practiced on such mass proportions. (3) Military personnel are retained in military or veterans' hospitals for continued treatment until they are no longer infectious, insofar as such a practice is compatible with the life history of the disease. (4) The United States Public Health Service in coöperation with State and local public health organizations is constantly on the watch for signs of unusual incidence and spread of disease and is prepared to launch even more active campaigns of control should need arise.

No great concern is indicated in those sections of the country in which every day, peace-time standards of health maintenance are high by virtue of adequately staffed departments of public health generously supported by public funds. There is concern for those localities in which health standards are normally low, for if disease is introduced there it will have a much better chance to establish itself and spread.

Certain diseases occurring in troops overseas are of an acute nature, self-limited and not characterized by the development of a carrier state in man. From these diseases we need expect no great difficulty. Included in this group are yellow fever, cholera, plague, phlebotomus fever, dengue, Rift Valley fever, and a group of related rickettsial diseases, such as tsutsugamushi fever of Japan, scrub typhus of Burma, Malay and the Southwest Pacific, Astralian Q fever, *fievre boutonneuse* of the Mediterranean area, and epidemic typhus of wide distribution.

The group of diseases of a chronic nature, or having a carrier state in man, includes trypanosomiasis, leishmaniasis, schistosomiasis, and filariasis, malaria, bacillary dysentery, amebiasis, relapsing fever, and leprosy. Of these so far the major problems have been with malaria and filariasis. Since both these diseases are mosquito-borne no danger to the civilian population need be expected if high standard control measures are maintained by civilian public health agencies in this country.

The chief postwar medical problem as regards imported medical diseases is to create and maintain such excellent public health standards and facilities that if disease is introduced from overseas it cannot spread.

Tarrant County Society

May 2, 1944

(Reported by X. R. Hyde, Secretary)

Fungus Infections of the Skin—Porter Brown, Fort Worth.
Fungus Infections of the Lungs—John Potts, Fort Worth.

Tarrant County Medical Society met May 2, in the Medical Arts Building, Fort Worth, with thirty-four members and one visitor present. The scientific program as given above was carried out.

The paper of John Potts was discussed by M. C. McCarroll, May Owen and John A. Wiggins, Jr.

Resolutions of sympathy were adopted on the deaths of Dr. Edwin Davis, and Dr. A. R. Ponton, Fort Worth, and Mr. R. W. Francis, father of Dr. F. W. Francis.

Porter Brown and M. H. Crabb spoke in support of the election of Dr. Titus Harris of Galveston to the office of President-elect of the State Medical Association.

The attendance prize, a cosmetic set, was won by Dr. May Owen.

June 6, 1944

Treatment of Mentally Ill Patients in a Modern Hospital—Grover A. Kempf, Medical Officer in Charge, U. S. Public Health Service Hospital, Fort Worth.
Electric Shock Therapy—L. F. Cleary, U. S. Public Health Service Hospital, Fort Worth.

Tarrant County Medical Society met June 6, with forty members and seven visitors present. The scientific program was presented by members of the staff of the U. S. Public Health Service Hospital, Fort Worth, as given above.

Mr. Stafford Page, personnel director, American Manufacturing Company, was introduced by President Frank Sanders and accorded the privilege of the floor. Mr. Page spoke briefly about releases being granted to employees based on statements made by physicians with regard to handicaps for their work. Mr. Page asserted that physicians were too lenient with such statements, and asked that the matter be given more thorough consideration before such statements are issued.

Tom Bond asked Mr. Page if he had a list of physicians issuing the statements. Mr. Page replied

that he did not have such list but in the future he would compile one.

President Sanders stated that the matter would be referred to the industrial relations committee with directions to take such action as the committee saw fit.

Doyle J. Doss, Andy J. Bowden, Jr., Rex J. Howard, James L. Johnson, John Simon, Jr., and Robert S. Spencer, were elected to intern membership.

Hazel Montgomery was elected to membership on application.

A. M. Patterson was elected to membership by transfer from Palo Pinto-Parker Counties Medical Society; William R. Leon, by transfer from St. Louis City Medical Society; and J. R. Barcus, from Gregg County Medical Society.

Secretary Hyde announced that resolutions of sympathy had been sent to Dr. and Mrs. W. E. Chilton, regarding the death of their son, Major Andrew L. Chilton, killed in action in the European theatre of war.

Members of the gasoline rationing committee spoke briefly regarding new rules and regulations and urged the coöperation of members.

Harold M. Williams, City Health Officer of Fort Worth, discussed the possibility of the passing of an ordinance requiring pasteurized milk in Tarrant County. President Sanders stated that the matter had been referred to the public health advisory committee for action.

C. C. Garrett made an announcement regarding the Fifth War Loan Drive and urged the coöperation of members. Tom Bond moved that meetings of the Society be dispensed with during July and August. The motion was seconded and carried.

The attendance prize, a box of cigars, was won by A. E. Jackson.

Tom Green Eight County Society

May 1, 1944

(Reported by Victor E. Schulze, Secretary)

Treatment of Head Trauma—S. R. Snodgrass, Professor of Neurosurgery, University of Texas School of Medicine, Galveston.

Tom Green Eight County Medical Society met May 1, in the Indian Room, of the Cactus Hotel, San Angelo, with twenty-three members, two guests and four visitors present. The scientific program as given above was carried out.

Treatment of Head Trauma. (S. R. Snodgrass). —Exclusive attention to the control of intracranial pressure was deprecated. The traditionally alleged benefits of spinal drainage, dehydration and head elevation in cases of head trauma were decried. Individualized care of the head trauma patient was urged, with particular consideration to the vulnerability of such patient to pneumonia, and the presence of other injuries to vital parts. The procedure of choice in such cases should include initial, appropriate care of concomitant shock, hyper-ventilation, postural lung drainage, adequate fluids, avoidance of restraint, and the use of sodium pentobarbital for restlessness. Catheterization and morphine administration should also be avoided. Nasopharyngeal oxygen therapy is indicated if cyanosis is present, and the patient should be watched closely for complications. Consciousness is the best index in prognosis and early ambulant privileges were advocated. Extension of neurologic signs, failure to improve, and secondary loss of consciousness were sugggested as conditions which should make one suspect the presence of a hematoma.

The paper was discussed by William E. Schulkey, O. J. Hartig, Dewey Sutton, Captain Kruglich and Major Gilbert.

Other Proceedings.—A communication was read from A. L. Lewis, with regard to a letter which Dr. Lewis had received from the principal of the senior high school, advising that his statement for services rendered football players could be honored only to the extent of remuneration offered by the insurance company, since a San Angelo physician had been designated as team physician and had agreed to accept such remuneration.

Jerome Smith insisted that a physician has the right to determine charges for his services.

K. B. Round, Dewey Sutton and G. L. Lewis called attention to the Texas Civil Statute which supports the choice of the insured for his physician. The San Angelo physician referred to as having an agreement with the school authorities regarding acceptance of stipulated fees allowed by insurance coverage denied existence of such agreement, and deprecated the practice of only part-payment service for medical services. He stated that he would not consider re-appointment as team physician for the ensuing year. He was not available for care of one the injuries received by a member of the team, which had been treated by A. L. Lewis.

The matter was referred by the president to an appropriate committee for consideration and recommendation.

A request was received from Miss Susan Miles, chairman of the Crippled Children's Committee, to the effect that the Tom Green County Medical Society invite the Crippled Children's Division, Austin, to arrange for a Crippled Children's case-finding clinic in San Angelo.

Victor E. Schultz, chairman of the City Board of Health, advised that case finding of crippled children was one of the functions of the City-County Health Unit, and that such case finding would be conducted in strict accord with principles of medical conduct and full recognition of talents of local physicians. He stated that the Board of Health's policy had been that no one is better able to judge the eligibility of such cases than the local medical profession.

Jerome Smith stated that while these services were intended for the indigent, it was his observation that the policy was badly abused in the conduct of the clinic held in San Angelo in 1940. The matter was further discussed by W. E. Schulkey.

F. T. McIntire moved that the secretary be instructed to notify Miss Miles that since Crippled Children's case finding would be conducted by the newly established health unit, it was the opinion of the Society that a separate clinic for this purpose was unnecessary. The motion was seconded by K. B. Round and carried.

Resolutions of sympathy were adopted on the death of Dr. W. B. Chaffin of San Angelo.

The public relations committee reported a recommendation that two sets of four volumes each of "The March of Medicine," be purchased for donation to the public library and the high school library of San Angelo, respectively, each of the volumes in the duplicate sets to be appropriately inscribed commemorating the memories of recently deceased members of the Society—Dr. H. K. Hinds, Dr. Harlan Horney, Dr. Sidney J. Burleson, and Dr. J. B. Chaffin.

On motion of J. P. McAnulty, the report of the committee was adopted.

On motion of Dewey Sutton, it was voted that the Society would hold its regular meeting in June, for the purpose of conducting unfinished business.

F. T. McIntire, president of the Fourth District Medical Society, stated that the medical profession of Brownwood had indicated their inability to conduct a district meeting this fall, and that J. M. Horn of Brownwood, has resigned as secretary. He announced the appointment of Dr. Victor E. Schulze of San Angelo as secretary of the Fourth District Society, and stated that plans were being made for a joint meeting of the District and Tom Green Eight County Medical Society in the fall.

June 5, 1944

Tom Green Eight County Medical Society held a business meeting June 5, in the Indian Room of the Cactus Hotel, San Angelo, with sixteen members and three visitors present. J. Marvin Rape, president, presided.

David L. Hess and Wayne Allen Reser were elected to membership on application.

The financial report disclosed a balance of $29.80, and discussion was had regarding the need for an assessment. The matter was tabled for further consideration at the September meeting.

Victor E. Schulze, chairman of the Public Relations and Legislative Committee, reported on the matter of affiliation with the American Association of Physicians and Surgeons, which had been referred to the committee for recommendation. The committee recommended disapproval of membership, the reasons being that the purposes of the Association of Physcians and Surgeons is incompatible with the ideals of the American Medical Association; endorsement of the American Association of Physicians and Surgeons would be inimical to good public relations; that the purposes of American medicine are attainable through established medical organizations, and that additional organizations are not only unnecessary but would divide the influence of American medicine.

V. E. Schulze, as secretary of the Fourth District Medical Society, announced plans for a combined Fourth District-Tom Green Eight County Medical meeting in the fall, which would include a report on the State Association public relations program to be presented by Mr. Aniol, public relations counsel employed by the State Association.

Announcement was made of the recent publication of an article in the Sheep and Goat Raisers' magazine, condemning efforts to socialize American medicine.

The public relations committee has agreed to assist Miss Grace Bitner in the compilation of a "History of Tom Green County," as pertains to medical practice in the county. Complete records of the Society, dating from its organization in 1901, are available and will be loaned to Miss Bitner.

F. T. McIntire reported for the committee on the matter pertaining to casualty insurance subscribed to by the San Angelo High School for the protection of its athletic teams. Dr. McIntire discussed the need of this protection for the school, the limitations of the policy, and reviewed the medical fees offered under the policy. Coöperation with the school authorities was urged as a good-will gesture.

Jerome Smith discussed inadequacies of the policy, especially in regard to fees allowed for roentgen ray examinations, which in certain instances would have to be paid for by the attending physician.

A. L. Lewis moved that members of the Society agree to abide by and comply with the terms of the high school policy in order to coöperate with the school authorities, and also to make available to any injured athlete the physician of his family's choice.

Jerome Smith urged that the Public Relations Committee consider the sponsoring of lectures by members of the Society before the service clubs of San Angelo.

V. E. Schulze, chairman of the Board of Health of San Angelo, reported on the accomplishments of the board to date. These include the establishment of a San Angelo-Tom Green County Health Unit; the appointment of Dr. W. L. Kitchens as director of the unit; the procurement of space in the City Hall, which will be appropriately prepared through financial aid from the Federal Works Agency; the designation of San Angelo by the State Health Department as a site for the establishment of a regional laboratory, and the writing of a food ordinance which was adopted by the San Angelo City Commission, May 22, 1944. Dr. Schulze discussed the procedure of food handlers' examinations under the new ordinance.

T. E. Dodd, temporary director of the health unit, gave an outline of the work planned for the unit.

F. T. McIntire lauded the efforts of the Board of Health and commended it for its accomplishments, urging that members of the Society give the Board their unified support. He urged that members who wished to criticize this project of the Society confine their criticisms to meetings in the Society for the purpose of helping the Board and not voice their criticisms outside for public consumption, which would ultimately hamper the efforts of the Board members who are giving of their time and abilities to carry out the wishes of the Society in this project.

R. E. Windham, Councilor of the Fourth District, gave a report of the proceedings of the Board of Councilors and the House of Delegates at the recent meetings in Dallas. Dr. Windham advised the Society regarding the adoption of the Public Relations Committee's recommendation concerning the employment of a public relations counsel, and the endorsement by the House of Delegates of prepaid medical care insurance plans, provided they are approved by the Council on Medical Economics of the State Medical Association. Increase of State Association dues to $20 for 1945, and the election of Dr. C. C. Cody, Jr., of Houston, as President-elect, were also reported by Dr. Windham.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Powers, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Galveston County Auxiliary met April 28, at the Rebecca Sealy Nurses' residence, for the last regular meeting of the year, with forty in attendance. Mrs. H. Slocum presided in the absence of the president, Mrs. William Potter.

Mrs. George Decherd was in charge of a musical program. Following a delightful program of musical numbers, tea was served, with Mrs. Slocum presiding at the tea service.

Hostesses for the meeting were Mrs. Leonard Twidwell, Mrs. W. F. Dawson, Mrs. N. D. Jarrell, Mrs. Paul Ewing and Mrs. George Decherd.

Lamar County Auxiliary held a luncheon meeting May 4, at Miss Fay Fitzpatrick's Tearoom, Paris. The following officers were elected for the ensuing year: Mrs. Elbert Goolsby, president; Mrs. C. D. Barker, first vice-president; Mrs. E. H. Stark, second vice-president; Mrs. R. L. Lewis, third vice-president; and Mrs. O. W. Robinson, secretary-treasurer.

Dr. Amy Bowen was guest speaker.

The Auxiliary voted to dispense with the annual June picnic this year.

Liberty-Chambers Counties Auxiliary met April 20 in the home of Mrs. A. L. DeLaney, Liberty, with Mrs. G. H. Farring of Anahuac, president, presiding.

Mrs. E. R. Shearer, Mount Belvieu, was elected delegate, and Mrs. R. C. Bellamy of Daisetta, alternate delegate, to the State Auxiliary meeting in Dallas. A report was received on the District Auxiliary meeting at Houston in March.

McLennan County Auxiliary held its final luncheon meeting of the year at the Spinning Wheel, Waco.

Mrs. Paul C. Murphey, installed the 1944-1945 officers as follows: Mrs. Brian Aynesworth, president; Mrs. D. D. Warren, first vice-president; Mrs. Boyd Alexander, second vice-president; Mrs. Tom Oliver, third vice-president; Mrs. Claire Miller, fourth vice-president; Mrs. Aubrey L. Goodman, recording secretary; Mrs. W. G. Trice, corresponding secretary; Mrs. Paul H. Power, treasurer; Mrs. H. R. Dudgeon, parliamentarian; and Mrs. W. A. Wood, historian.

Announcement was made of the red ribbon award to the Auxiliary at the State Auxiliary meeting in Dallas, for outstanding work in the State on blood plasma and for the public relations program in combating socialized medicine.

Travis County Auxiliary met April 18 at the Woman's Club, Austin, with Mrs. J. M. Coleman, presiding.

Local winners of war stamps for the State Health Essay Contest on "Medical Science Fights at Home and Abroad" were announced.

Services of the Library of the State Medical Association were summarized by Mrs. Dalton Richardson.

An announcement was made of the State Auxiliary board meeting to be held in Dallas, May 10 and 11.

The following officers were elected to serve for the ensuing year: Mrs. T. J. McElhenney, president; Mrs. Truman Morris, first vice-president; Mrs. James Eckhardt, second vice-president; Mrs. Billy Bailey, secretary; Mrs. Clay Perkins, treasurer; Mrs. S. E. Hudson, parliamentarian; Mrs. John Crockett, publicity chairman.

The hostess committee for the meeting was composed of Mrs. J. R. Nichols, Mrs. Billy Bailey, Mrs. C. P. Hardwicke, Mrs. C. W. Castner, Mrs. M. F. Kreisle, Mrs. Sam Key and Mrs. Henry Hilgartner.

BOOK NOTES

[1]**Transactions of the American Proctologic Society.** Forty-Third Annual Session, June 7-9, 1942, Marlborough-Blenheim Hotel, Atlantic City, N. J. Cloth, 278 pages. Press of the C. V. Mosby Company, St. Louis, Mo., 1943.

To one who is not fairly conversant with the field of proctology, the scholarly and clinical experience of the personnel of the membership of the American Proctologic Society and invited contributors to the programs, the question might arise as to whether or not the annual proceedings would not be largely repetitions.

To one who is more or less familiar with the Transactions for the past ten or fifteen years it can be said there is very little repetition and each volume is interesting and instructive. The 1942 Transactions maintains the high standards of the forty-two preceding ones.

The Executive Committee has offered the Surgeons General of the Army and Navy the facilities of the American Proctologic Society and also expressed the hope that of the various members in the armed forces, their specialty be recognized.

The Review of Proctologic Literature for the preceding year is a very important contribution and entails an enormous amount of work on the part of the reviewer.

The review of the proctologic literature dealing with non-malignant diseases is much less extensive. Then follows ten more papers on various subjects. Especially would the reviewer urge the careful study of a paper, "Pre- and Postoperative Care of Patients with Rectal Cancer with Special Reference to Liver Damage," by Dr. George E. Binkley of New York City. This paper is based on a large series of resections as illustrated in the following statement of the author: ' 'At the date of writing, May 16, 1942, we have now completed se series of 86 consecutive one-stage operations without a single fatality."

In the article following, "Metabolic Studies in Patients with Cancer of the Gastrointestinal Tract," by Dr. Cornelius P. Rhodes and associates from the laboratory at Memorial Hospital, it is stated that the laboratory studies were not made on mice and guinea pigs, but in the cases of Dr. Binkley and associates. The two articles complement each other. Then follows seven case reports with discussions.

To a physician with any casual interest in proctology the field apparently is very limited; however, to one who has given much thought and had extensive experience in this particular work, while the limitation is essentially anatomic, clinically it leads far afield.

At a business meeting it was announced that the 1942 Transactions will be the last until the close of the war. The Transactions should stimulate any reader to be on the alert when examining patients for any proctologic complaint.

[1]Reviewed by Frank G. Sanders, M. D., Fort Worth, Texas.

[2]**Nascent Endocrine Therapy.** By John Franklin Ritter, M. D. 317 pages. Caldwell, Idaho: The Caxton Printers, Ltd., 1940.

John Franklin Ritter, M. D., of Maquoketa, Iowa, who graduated from the University of Michigan in 1895, after practicing for forty-five years, wrote this book in 1940. The last eighteen years of his practice he devoted to clinical research in endocrinology, and during that time, treated 5,000 patients. As a consequence of his investigation, he convinced himself of the value of nascent (fresh) endocrine therapy, especially in hypertension, hypotension, and peptic ulcers. He goes so far as to state that the cure of functional hypertension and hypotension is established, and that hypertension due to organic conditions (cerebral arteriosclerosis) can be relieved or controlled easily.

Dr. Ritter makes an appeal to clinical physicians who could find in it, with little investigation of the technique of nascent therapy, cures comparable to insulin in diabetes and liver in pernicious anemia.

In his opinion, this type of research is much more important than animal experimentation. Neither has he been concerned with etiology or pathology, and admits that his work has been rejected as unscientific.

His nascent endocrine therapy consists of an injection of secretion obtained from the flesh glands of animals, especially of the goat, as well as application of such glandular transplants. He contends that the fresh secretion contains more of the active principal, is more physiological, and more lasting than the hormones obtained from laboratory methods which have become modified and fractional in their reactions. These secretions and transplants can be applied without producing infections or protein reactions.

He repeatedly denounces any attempt at rejuvenation, but rather does he contend that in dyscrinisms it is the metabolism which is at fault, and that, by the application of fresh products, normal metabolism can be rapidly re-established. He differentiates between a "systemic" and a basal metabolism due usually to thyroid disfunction.

The basic secretion is one which he calls the "interstitial secretone," which can be obtained from any gland. However, that obtained from the gonad of the young goat ("carpine tissues") possesses the most synergistic and gyroscopic properties.

[2]Reviewed by A. J. Schwenkenberg, M. D., Dallas, Texas.

He has devised a "man unit" as compared with an animal unit, which consists of injections of 1 cc. of "interstitial secretone," and which will reduce systolic blood pressure 25 to 75 mm. within twenty-four to forty-eight hours.

Dr. Ritter's case reports are difficult to believe, and when he states that twenty-three of twenty-six cases of dementia praecox "yielded fully to interstitial secretone alone," I become even more skeptical.

In closing his chapter on "Ovarian Therapy," after describing some miraculous curse, he states: "To the skeptic, these citations may appear to discount the tales of Baron Munchausen, but they can be duplicated by a clinician willing to give the subject consideration to comply with the requirements of intelligent applications."

It is amusing that with Dr. Ritter, as with many others, it is still goat glands which supply the mysterious secretion.

[3]**Medical Radiographic Technic.** Prepared by The Technical Service Department of General Electric X-Ray Corporation under the editorial supervision of Glen W. Files, Director, in association with a number of other contributors. Cloth, 365 pages. Price, $6.00. Springfield, Illinois, Charles C. Thomas, Publisher, 1943.

This new book is comprehensive, fully explains the fundamentals of x-ray physics, generators, tubes and correlates the various laws and factors used in radiographic technic.

It covers well the technical phases of medical and dental rediography.

This contains approximately 500 illustrations and especially noteworthy is the original series largely self-explanatory photographs on the chapter on positioning. There is a special chapter on x-rays physics accompanied by 100 illustrations, many of which are in color. There is also a special chapter on anatomy with approximately fifty illustrations.

DEATHS

Dr. Winfred Wilson of Memphis, Texas, died May 1, 1944, in a Baltimore, Maryland, hospital, of coronary occlusion and peritonitis following intestinal obstruction.

Dr. Wilson was born October 3, 1879, in Dadeville, Missouri, the son of Dr. and Mrs. C. F. Wilson. He came to Texas with his parents in 1884. His preliminary education was received in the public schools of Wise County and Weatherford College, from which latter institution he was graduated with the B. A. Degree in 1900 as valedictorian of his class. His medical education was received in Johns Hopkins University at Baltimore, from which he was graduated in 1904. While in Johns Hopkins, he served as a student instructor in anatomy. In 1905, he located in Dallas. While there he held the position of professor of anatomy at Southwestern University and later was professor of pathology and bacteriology in Baylor University College of Medicine. In 1908, he removed to Memphis to become associated with his father in practice. He was continuously in practice in this location until his final illness.

Dr. Wilson was a member of the Childress-Collingsworth-Hall Counties Medical Society, State Medical Association and American Medical Association continuously from 1910 until his death. He was also a member of the Panhandle District Medical Society, of which he was a past president. He had served the City of Memphis and Hall County as health officer for many years. He was also local surgeon for the Fort Worth and Denver Railroad from 1917 until his death. During World War I, he was chairman and physician for the Selective Service Board No. 1 in Hall County, and chairman of the Hall Chapter of the American Red Cross. During his professional career he had taken postgraduate work regularly at various clinical centers throughout the country and had kept well abreast of advances in medicine and surgery. He was a member of the Phi Chi medical fraternity. In 1912, Dr. Wilson and his father opened the Wilson Sanatorium at Memphis and operated it until 1921. In 1923, Dr. Wilson purchased the hospital, which became known as the Memphis Hospital, and with his wife, the former Hulda Cannon, a registered nurse of Clarendon, Texas, had operated it until November, 1943. Dr. Wilson took an active part in the affairs of his county medical society and the State Medical Association, which he had served well on many important committees. He also found time to assume civic leadership and had a prominent part in all programs for community betterment. He will be sincerely missed as a capable physician and valued citizen.

Dr. Wilson is survived by his wife; a son, Dr. Henry C. Wilson of Memphis; and a daughter, Mrs. J. L. Downs of Lubbock, by a former marriage. He is also survived by three sisters, Mrs. Mary Williams and Mrs. Maggie Ragsdale, both of Memphis, and Mrs. Viola Wimberly, Amarillo.

Dr. Ewing Oliphant Evans of San Antonio, Texas, died at his home June 8, 1944, of carcinoma of the colon.

Dr. Evans was born September 5, 1868, in Bardstown, Kentucky, the son of Mr. and Mrs. Walter M. Evans. His academic education was obtained in the Bardstown College, Bardstown, Kentucky. His medical education was received in the Kentucky School of Medicine, Louisville, from which he was graduated June 20, 1892. He began the practice of medicine in Eagle Pass, Texas, in 1892. He was surgeon for the Mexican International Railroad, and the Coahuila and Alamo Coal Companies from 1895 until 1902, at which time he moved to San Antonio, where he was in active practice until his death.

DR. E. O. EVANS

Dr. Evans was a member of the Bexar County Medical Society, State Medical Association and the American Medical Association in good standing continuously throughout his professional life in Texas. He had been an active and interested member of the Lions Club. He was a member of the Episcopal Church. He had served as president of the San Antonio Board of Education for four years, having been elected to that position in 1918. He had been an energetic civic leader in his oommunity,

[3]Reviewed by Roy G. Giles, M. D., San Antonio, Texas.

as well as a physician, and will be missed by all who knew him.

Dr. Evans was married to Miss Maud Shelley of Austin in 1895, who preceded him in death, January 18, 1944. He is survived by one son, Capt. O. Shelley Evans of San Antonio, now overseas; one daughter, Mrs. Wendell Mayes, Brownwood; two sisters, Mrs. LeRoy S. Bates and Mrs. W. E. Fitch, San Antonio; and four grandchildren, Ewing Evans and Philip Evans, San Antonio, Wendell Mayes of the U. S. Navy, and Jane Ellen Mayes, Brownwood. Dr. Evans was an uncle of Dr. LeRoy E. Bates of San Antonio, and Dr. Edward Oliphant Fitch of Houston.

Dr. William Carlton Farmer of San Antonio, Texas, died April 5, 1944, of carcinoma.

Dr. Farmer was born December 6, 1866 at Bloomington, Indiana, the son of Joel and Emma Farmer. His medical education was obtained at the Hospital College of Medicine, Louisville, Kentucky, from which he was graduated June 17, 1891. He then practiced medicine in Bowling Green, Kentucky, for about nine years, later removing to Paris, Texas, where he practiced for five years. He then moved to San Antonio, which was his home for the remainder of his professional life.

DR. W. C. FARMER

Dr. Farmer had been a member of the Bexar County Medical Society, State Medical Association and American Medical Association for many years. He was elected an honorary member of the State Medical Association in 1933, and this membership status had continued until his death. He served as director of the National Tuberculosis Association from 1931 to 1934, of which organization he was also an honorary member. He was a member of the Southern Tuberculosis Association. He had been a member of the International Union against Tuberculosis, and of the American College of Chest Physicians. Dr. Farmer was a pioneer in the use of x-ray in the diagnosis of tuberculosis, and x-ray burns received in this early day period were the cause of the carcinoma from which he died. He was a pioneer phthisiologist in Texas and had devoted his life to a study of tuberculosis and its treatment. He operated the first tuberculosis sanatorium in San Antonio.

Throughout his professional career he had taken postgraduate work regularly at such clinical centers as the Mayo Clinic, Rochester, Minnesota, New York, Baltimore, and Asheville, North Carolina in this country; Hamburg, Germany, and other European clinics. He thus kept constantly abreast of scientific advancement in his elected specialty. He was greatly interested in Masonry, being a thirty-third degree Scottish Rite Mason, and a member of the Methodist Church.

Dr. Farmer was married to Miss Ellen Cook of San Antonio in 1934, who survives him. Other survivors include a daughter, Mrs. Katherine Mitchell, Denver, Colorado, and a dranddaughter.

Dr. Abell D. Hardin of Dallas, Texas, died in a Dallas hospital, following an illness of several weeks' duration.

Dr. Hardin was born March 21, 1883 at, Greer, South Carolina, the son of Reverend Dexter C. and Emma (Duncan) Hardin. His academic education was received at Baylor University, Waco. His medical education was obtained in the Baylor University School of Medicine from which he graduated on April 29, 1909. He served an internship at Baylor Hospital, as a member of the first class of interns to serve there. Later, he took postgraduate work at Harvard University and the University of Pennsylvania, where he had studied under Dr. Chevalier Jackson, internationally known bronchoscopist. He began the practice of general medicine in 1910, which he continued for about five years, when he became associated with Dr. E. H. Cary in the practice of ophthalmology and otolaryngology.

DR. ABELL D. HARDIN

Dr. Hardin was a member of the Dallas County Medical Society, the State Medical Association of Texas and the American Medical Association continuously in good standing throughout his professional life. He was also a member of the Dallas Southern Clinical Society and the Dallas Academy of Ophthalmology and Otolaryngology, which latter society he was serving as president at the time of his death. He was a Fellow of the American College of Surgeons, a diplomate of the American Board of Otolaryngology, and member of the Texas Opthalmological and Otolaryngological Society. Dr. Hardin was assistant professor of Clinical Otolaryngology and Bronschoscopy at the Southwestern Medical College before his death; he had held the same position for many years at Baylor University College of Medicine before its removal from Dallas. He was a skilled bronchoscopist. He was a thirty-second degree Mason, and a life member of the Dallas Athletic Club. He had been an active member of the First Baptist Church of Dallas. His death is a distinct loss to the medical profession and citizenship of Dallas.

Dr. Hardin was married to Miss Pearl White of Lancaster, Texas, who preceded him in death in 1940. He is survived by one son, Lieut. (jg) Hal White Hardin, now serving with the Naval Medical Corps, U. S. N. R., Fort Pierce, Florida; one brother, Dr. Dexter H. Hardin, Dallas; four sisters, Mrs. R. G. Taylor, Misses Hallie and Idessa Hardin, Dallas, and Mrs. R. C. Fulbright, Houston.

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Vol. XL **August, 1944** **No. 4**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The Official Family of the Association for the Present Administration is published herewith, for the information of all who would like to know, and, hopefully, for some who don't care very much about it. Here is the machinery of the Association, and it should be understood, not purely as to its mechanical setup, but as to its functioning as well. These matters cannot be well understood except certain factors which enter the case are presented. We cannot here present these factors in full, for obvious reasons, but we can outline them, and the State Secretary promises to go into detail with any who would make further inquiries.

First, let it be understood that the State Secretary is officially advising that the list of Officers, Councils and Committees here published is correct, according to the record. That is the extent of his responsibility and prerogatives in the matter. Any differences of opinion as to the legality or propriety of any particular record must be settled by other agencies, and not by the Secretary-Editor. Elsewhere in this number of the JOURNAL will be found a discussion of a problem which has arisen in this connection.

The functions of officers, councils and committees are set out in the Constitution and By-Laws of the Association, and with unusual completeness and clarity, we think. We also think that, for the most part, these agencies of the Association have functioned correctly, and with a fair degree of adequacy, circumstances being considered. We appreciate that war conditions have interfered considerably, but many such interferences have been overcome, and others should be overcome. We are now engaged in an "obstacle race." Obstacles are to be vaulted or bypassed, according to the rules of the race. It is to be hoped that, individually and by groups, these agencies of the Association will make particular efforts to function in full this year. We are hoping that our leaders, most of whom are members of our Association, will do their individual and collective best to help, and to be helped. Service in this connection is mutual, and it cannot be otherwise, under the circumstances.

For instance, if any member has a problem, medical, economic or administrative, he should either go direct to the proper agent of the Association with it, or present the matter to the State Secretary, who will see that it is properly channelled. He cannot see that it is satisfactorily met, but he and the President, and perhaps others, can help, one way or another. Should the matter pertain to finances of the Association, there is the Board of Trustees; should it be a matter of ethics, there is the Board of Councilors; should it be be a matter pertaining to policies of the American Medical Association, there are Delegates from our Association to that organization.

The Council on Medical Defense takes care of certain legal phases of our work, particularly malpractice damage suits.

Our Council on Scientific work deals directly with the scientific programs of our annual meetings, and indirectly with any and all

scientific work of the Association. It has the authority to stir things up on its own initiative, or upon petition. This council coordinates the work of the other committees having to do with scientific matters, although it probably cannot and would not undertake to direct the action of such committee. The Council holds about the same relative position in these matters that the President of the Association holds in all matters, which is to actuate, encourage, advise and sometimes more or less coerce. It is conceivable that the Council on Scientific Work may have something to say to our committees on Health Problems in Education, or Cancer, or Postgraduate Medical Education, Scientific Exhibits, Medical Education and Hospitals, Mental Health, Fractures, Maternal and Child Health, Tuberculosis, Venereal Disease, Industrial Health, Malaria, Pneumonia, and Public Relations, to name all of them, even though many of these committees have functions outside the strict scientific range, perhaps of an economic sort, or legislative. That is a rather broad range, and probably the Council on Scientific Work has not heretofore gone very far afield in these matters, but that is the setup. Fortunately, and in this connection, it may be said that, for the most part, our committees having to do with scientific problems, function very well on their own, and without much official effort at coordination.

As has been stated here, the Council on Scientific Work supervises and directs the scientific programs of our annual meetings, including the programs of the Scientific Sections, and the scientific exhibits. Indeed, the officers of Scientific Sections are ex-officio members of the Council on Scientific Work, and as such they have full responsibility and authority upon a per capita basis. This would seem to be a wise provision, in that a small group continues in service on an overlapping term-of-office basis, and a larger group constitutes new blood each year. The advisability of the combination can be easily surmised. The list of Section Officers constitutes a part of the Official Family. The President appoints the Chairman of the several Sections, and upon nomination of said chairman, also the Secretaries.

Whether or not there will be an annual meeting during this administration, the officers of scientific sections will prepare programs just as if there were to be such a meeting, accepted papers to be published in the JOURNAL, if found worthy of publication, which they usually are. It will be remembered that the House of Delegates at its recent meeting decided to hold the regular annual meeting of the Association next year at Galveston, upon the invitation of the Galveston County Medical Society and the Galveston Chamber of Commerce, provided war conditions will permit. Therefore, and under the circumstances, it is well for those of our readers who feel that they have something of interest to present to the medical profession of Texas and the world, to say something about it to one of the officers of the Scientific Sections. The programs of the scientific sections must be completed and approved by the Council on Scientific Work by the middle of January, and it is generally a matter of first come first served, the scientific value of papers being approximately the same. There is always a surplus of papers offered. Essayists cannot appear on the programs of two annual meetings in succession, except for very special reasons, approved by the Council on Scientific Work. Should by any chance the idea of holding the annual meeting in one city be abandoned, quite likely the plan of last year will be adopted, and the scientific sections will, therefore, function anyway. It will be recalled that the sections were grouped last year, one group meeting in San Antonio, another group in Fort Worth, and another in Austin, with the House of Delegates meeting in Dallas, all of which means that there will be a program for an annual meeting, regardless.

Matters of economic concern fall within the realm of the Council on Medical Economics. This council has rather far-reaching authority, but it is guided in most of its activities by other agencies of the Association, namely, the Board of Trustees, Board of Councilors, the Executive Council, the Committee on Legislation and the Committee on Industrial Health, not to mention other committees which have to do in part with the problems of economics. At the moment this Council is about to assume a very important burden, namely, that of determining whether insurance companies, associations, or what have you, presuming to deal with the problem of the distribution of medical service, are in accord with the policies of our Association, including medical ethics. In exercising this function, this Council will of necessity be informed as to the policies of the Association with regard to such matters, and familiar with provisions of policies or contracts presented by various interests, looking to the distribution of medical service on a prepayment fee, or other basis of remuneration. The Council can do no more than say that a given policy is "satisfactory" or not so, as occasion may be; or that the plan is "acceptable" or not acceptable, also as the case may be.

Our Council on Medical Defense, in some particulars on its own, and in other particu-

lars in conjunction with the Board of Trustees, assumes responsibility for the legal affairs of the Association, particularly as relate to malpractice damage suits against members. According to the By-Laws, this service is supported by the allocation of one dollar out of the dues of each member, and, in certain cases, appropriation by the Board of Trustees. It must not be understood that the State Medical Association assumes any responsibility in the matter, other than advising the individual member and, on occasion, in making definite contributions to those who need or can use the money.

All legislative matters must be handled by the Committee on Legislation, whether or not by the direction or consent of the House of Delegates or Executive Council, or with the advice of other councils and committees of the Association which may have occasion to approach the Legislature in the performance of any of their duties. For instance, should it seem desirable to the Committee on Health Problems in Education that legislation be set up in that connection, it would present the matter to the Committee on Legislation, and join the committee in going before the Legislature in that connection. We have seen this plan work admirably in connection with the Committee on Cancer, in particular, and, of course, the temporary Committee on Medical Licensure.

Many of our committees are essentially advisory to other groups, either of the Association or of other organizations. For instance, our Committee on Medical Education and Hospitals will have to do with problems of relatively the same committee of the American Medical Association, and several other national organizations in the same field. Our Committees on Tuberculosis, Venereal Diseases, Malaria, and Pneumonia, are very largely advisory to the State Board of Health and other organizations having to do with the several problems concerned.

There is a committee to advise with the Woman's Auxiliary to the State Medical Association, one to advise with the medical technologists of the State, and one to advise with the recognized association of Negro physicians of the State. And it must not be forgotten that there is an Advisory Council of Past Presidents, the function of which is to help out in any and all activities of the Association.

Our recently created Committee on Public Relations has, perhaps, the most immediately important function of any of our committees. The purpose of this committee is to see to it that the medical profession itself and its dependent public, are advised, educated or instructed in matters of public health, particularly as such matters are influenced by legislation, national or local. In doing this, the committee must cooperate closely with the officers, councils and committees of the Association having to do with any matters concerned. It functions through whatsoever agency may come to hand, and under the direction of expert publicity advisers. It will be remembered that this committee was set up by recently retiring President Dr. Venable, and that it has been transferred to the jurisdiction, and placed under the control of the Board of Trustees, with Dr. Venable as its Chairman, and with practically the same distinguished membership set up in the beginning.

While it is now the policy of the State Medical Association not to make any demands for legislation which will be highly controversial, either among our own members or in the State Legislature, our Committee on Medical Licensure is still in existence, presumably devoting its time and efforts to research and planning. It will not function otherwise except under the direction of the Executive Council, and/or the Legislative Committee. Should measures of a controversial sort pertaining to medicine be introduced in the State Legislature, they would undoubtedly be considered by our Legislative Committee, and perhaps through the committee by the Executive Council, and our hands would be forced in some particulars. There are several committees in the general category of the Committee on Medical Licensure which may be concerned, and any of them would be called into conference with the Legislative Committee or Executive Council, as the case may be, when legislative measures of concern to them are under consideration.

While our Delegates to the American Medical Association will deal with problems of direct interest to the medical profession of our State, they are rather upon their own. We can direct them by resolution of the House of Delegates or of the Executive Council, and we can advise with them at any or all times upon any or all subjects of national concern. Our Delegates to the A. M. A. have apparently always been interestedly and affirmatively responsive to the demands and policies of our Association. They seek the advice of our members.

The list of the Official Family for the current administration, follows:

OFFICERS

H. F. Connally, President, Waco.
C. C. Cody, President-Elect, Houston.
R. G. Johnson, Vice-President, Newgulf.
E. W. Wright, Vice-President, Bowie.
H. E. Whigham, Vice-President, McAllen.
Holman Taylor, Secretary, Fort Worth (two years).
K. H. Beall, Treasurer, Fort Worth (two years).

Board of Trustees

Sam E. Thompson, Chairman, Kerrville (four years).
T. C. Terrell, Secretary, Fort Worth (one year).
J. B. McKnight, Sanatorium (five years).
W. B. Russ, San Antonio (three years).
E. W. Bertner, Houston (two years).

Board of Councilors

First District, Joel Wright, Alpine (one year). Leslie Smith, El Paso, Vice-Councilor.

Second District, W. E. Ryan, Midland (three years). A. H. Fortner, Sweetwater, Vice-Councilor.

Third District, E. A. Rowley, Amarillo (two years). G. T. Vinyard, Amarillo, Vice-Councilor.

Fourth District, R. E. Windham, San Angelo (one year). H. L. Locker, Brownwood, Vice-Councilor.

Fifth District, C. E. Scull, San Antonio, Chairman (two years). W. H. Hargis, San Antonio, Vice-Councilor.

Sixth District, J. G. Webb, Mercedes (two years). C. P. Yeager, Corpus Christi, Vice-Councilor.

Seventh District, R. T. Wilson, Austin, Secretary (three years). J. R. deSteiguer, San Marcos, Vice-Councilor.

Eighth District, F. J. L. Blasingame, Wharton (three years). Harry H. Brown, Jr., Yoakum, Vice-Councilor.

Ninth District, J. E. Clarke, Houston (three years). J. H. Wootters, Houston, Vice-Councilor.

Tenth District, A. E. Sweatland, Lufkin (three years). William H. Warren, Center, Vice-Councilor.

Eleventh District, A. L. Hathcock, Palestine (one year). Leroy Trice, Palestine, Vice-Councilor.

Twelfth District, G. V. Brindley, Temple (two years). J. W. David, Corsicana, Vice-Councilor.

Thirteenth District, O. B. Kiel, Wichita Falls (one year). J. H. Caton, Eastland, Vice-Councilor.

Fourteenth District, C. C. Nash, Dallas (one year). H. Leslie Moore, Dallas, Vice-Councilor.

Fifteenth District, C. A. Smith, Texarkana (two years). Joe Nichols, Atlanta, Vice-Councilor.

Delegates to A. M. A.

Holman Taylor, Fort Worth (one year).
F. J. L. Blasingame, Wharton (one year).
H. R. Dudgeon, Waco (two years).
B. E. Pickett, Carrizo Springs (two years).
E. H. Cary, Dallas (two years).

Alternates

R. B. Anderson, Fort Worth (one year).
L. H. Reeves, Fort Worth (one year).
E. W. Bertner, Houston (two years).
H. Leslie Moore, Dallas (two years).
A. C. Scott, Temple (two years).

Council on Medical Defense

W. D. Jones, Chairman, Dallas (three years).
Holman Taylor, Secretary (ex-officio), Fort Worth.
A. P. Howard, Houston (four years).
W. L. Baugh, Lubbock (two years).
W. A. King, San Antonio (one year).

Executive Council

Ex-officio, the President (Chairman), and the Secretary (Secretary of the Association); President-elect, Vice-Presidents, Board of Trustees, Board of Councilors, and the Legislative Committee.

Council on Scientific Work

Ex-officio, the President and Secretary and Officers of Scientific Sections.
A. C. Scott, Chairman, Temple (three years).
R. B. Alexander, Waco (five years).
J. S. McCelvey, Temple (four years).
Tom G. Glass, Marlin (two years).
David A. Todd, San Antonio (one year).

Council on Medical Economics

H. E. Griffin, Chairman, Graham (four years).
H. R. Dudgeon, Waco (five years).
W. R. McWilliams, Del Rio (three years).
W. F. Starley, Galveston (two years).
W. A. Lee, Denison (one year).

Committee on Legislation

John H. Burleson, Chairman, San Antonio (three years).
H. F. Connally (ex-officio), Waco.
Holman Taylor, Secretary (ex-officio), Fort Worth.
Vacancy* (five years).
Joe Gilbert, Austin (four years).
N. D. Buie, Marlin (two years).
L. H. Reeves, Fort Worth (one years).

Committee on Collection and Preservation of Records

W. B. Russ, Chairman, San Antonio (two years).
H. W. Cummings, Hearne (five years).
Marvin L. Graves, Houston (four years).
John T. Moore, Houston (three years).
E. W. Bertner, Houston (one year).

Committee on Health Problems in Education

O. M. Marchman, Chairman, Dallas (three years).
W. S. Barcus, Fort Worth (five years).
C. P. Yeager, Corpus Christi (four years).
H. H. Ogilvie, San Antonio (two years).
D. J. Jenkins, Daingerfield (one year).

Committee on Cancer

E. W. Bertner, Chairman, Houston (three years).
George T. Caldwell, Dallas (five years).
Frank C. Beall, Fort Worth (four years).
A. A. Ross, Jr., Lockhart (two years).
Dudley Jackson, San Antonio (one year).

Committee on Postgraduate Medical Education

Felix P. Miller, Chairman, El Paso (one year).
Dick P. Wall, Galveston (five years).
A. O. Singleton, Galveston (four years).
Lee Rice, San Antonio (three years).
DeWitt Neighbors, Fort Worth (two years).

Committee on Transportation.—O. F. Gober, Chairman, Temple; R. S. Yancey, Dallas; Judson L. Taylor, Houston; Clifford G. Swift, Cameron; O. T. Christoffer, Mexia.

Committee on Memorial Exercises.—W. L. Crosthwait, Chairman, Waco; John R. deSteiguer, San Marcos; James W. Ward, Greenville; Hobart Y. Lacy, Pittsburg; James Greenwood, Houston.

Committee on Scientific Exhibits.—X. R. Hyde, Chairman, Fort Worth; Charles Phillips, Temple; T. P. Churchill, Amarillo; J. P. McAnulty, San Angelo; W. L. Marr, Galveston.

Committee on Medical Education and Hospitals.—Raymond L. Gregory, Chairman, Galveston; F. R. Rugeley, Wharton; C. C. McDonald, Tyler; J. Peyton Barnes, Houston; J. C. Thomas, Austin.

Committee on Revision of Constitution and By-Laws.—S. H. Watson, Chairman, Waxahachie; Joe D. Nichols, Atlanta; Sam G. Dunn, Lubbock; Harry H. Brown, Jr., Yoakum; R. T. Travis, Jacksonville.

Advisory Committee to Woman's Auxiliary.—A. B. Pumphrey, Chairman, Fort Worth; Sam R. King, El Paso; R. Q. Hunter, Palestine; Joe Gilbert, Austin; Thomas L. Denson, Cameron.

Advisory Board to the Texas Society of Medical Technologists.—May Owen, Chairman, Fort Worth; S. W. Bohls, Austin; J. L. Goforth, Dallas.

Committee on Mental Health.—Guy F. Witt, Chairman, Dallas; John A. McIntosh, San Antonio;

*Secretary's Note.—Vacancy exists because of election by the House on nomination from the floor instead of confirmation of appointee of President-Elect, as provided by Sec. 8 (A-5) of the By-Laws of the Association.

Samuel D. Swope, El Paso; E. W. Applebe, Houston; Giles W. Day, Fort Worth.

Committee on Fractures.—Charles E. Collins, Chairman, Waco; Julius T. Kreuger, Lubbock; Earl H. Newton, Corsicana; Joe B. Foster, Houston; William M. Gambrell, Austin.

Committee on Maternal and Child Health.—Roy L. Grogan, Chairman, Fort Worth; H. Leslie Moore, Dallas; David Greer, Houston; D. H. Hudgins, Forney; H. C. Eckhardt, Yorktown.

Committee on Tuberculosis.—R. G. McCorkle, Chairman, San Antonio; R. B. Holman, Jr., El Paso; C. B. Taylor, Gainesville; Harvey Renger, Hallettsville; J. S. Wootters, Crockett.

Committee on Venereal Diseases.—Thomas M. Jarmon, Chairman, Tyler; A. A. Terry, Austin; W. F. Hasskarl, Brenham; R. K. Harlan, Temple; A. G. Barsh, Lubbock.

Committee on Industrial Health.—Jack Furman, Chairman, Fort Worth; Carl McCurdy, Marshall; Richard Keys, Amarillo; J. W. Simons, Newgulf; M. M. Brown, Mexia.

Committee on Malaria.—George R. Herrmann, Chairman, Galveston; O. B. Gober, Temple; Louis P. Good, Texarkana; Charles A. Schoultz, Bay City; J. C. Bradford, Mart.

Committee on Pneumonia.—David W. Carter, Jr., Chairman, Dallas; B. A. Mosley, Victoria; Nan L. Gilkerson, Amarillo; Fred E. Felder, Palestine; M. F. Kreisle, Austin.

Committee on Library Endowment.—B. E. Pickett, Sr., Chairman, Carrizo Springs; A. L. Ridings, Sherman; V. R. Hurst, Longview; Orville E. Egbert, El Paso; L. C. Powell, Beaumont.

Committee on Procurement and Assignment.—Holman Taylor, Chairman, Fort Worth; R. B. Anderson, Vice-Chairman, Fort Worth; G. F. Thornhill, Austin; E. F. Cadenhead, Brownwood; C. G. Swift, Cameron; J. S. McCelvey, Temple.

Committee on Medical Licensure.—W. B. Russ, Chairman, San Antonio; T. C. Terrell, Vice-Chairman, Fort Worth; E. A. Rowley, Secretary, Amarillo; S. E. Thompson (ex-officio), Kerrville; C. E. Scull (ex-officio), San Antonio; H. E. Graham (ex-officio), Graham; J. Allen Kyle, Houston; Sam Key, Austin; E. W. Bertner, Houston; O. B. Kiel, Wichita Falls.

Committee on Public Relations (Sub-Committee of the Board of Trustees).—C. S. Venable, Chairman, San Antonio; Sam Key, Austin; W. A. Smith, Beaumont; H. H. Cartwright, Breckenridge; Harry G. Heaney, Corpus Christi; Frank A. Selecman, Dallas; Felix P. Miller, El Paso; R. J. White, Fort Worth; Phil A. Bleakney, Harlingen; Walter A. Coole, Houston; Ruby Lowry, Laredo; Allen T. Stewart, Lubbock; V. E. Schulze, San Angelo; Robert A. Miller, San Antonio; Merton M. Minter, San Antonio; Walter G. Stuck, San Antonio; William Hibbitts, Texarkana; C. G. Catto, Waco; O. B. Kiel, Wichita Falls.

Liaison, Lone Star State Medical, Dental and Pharmaceutical Association.—Ex-officio, the President, Secretary, Chairman Board of Trustees, Chairman Board of Councilors, and Chairman Council on Medical Economics.

Advisory Council of Past Presidents.—All of the Past Presidents of the State Medical Association.

OFFICERS OF SCIENTIFIC SECTIONS

SECTION ON MEDICINE

W. H. Potts, Jr., Chairman, Dallas.
Gladys Fashena, Secretary, Dallas.

SECTION ON SURGERY

R. Wilson Crosthwait, Chairman, Waco.
H. Walton Cochran, Secretary, Dallas.

SECTION ON OBSTETRICS AND GYNECOLOGY

Robert A. Johnston, Chairman, Houston.
John D. Weaver, Secretary, Galveston.

SECTION ON EYE, EAR, NOSE AND THROAT

Sam N. Key, Chairman, Austin.
C. S. Sykes, Galveston.

SECTION ON RADIOLOGY AND PHYSIOTHERAPY

Tom B. Bond, Chairman, Fort Worth.
Asa E. Seeds, Secretary, Dallas.

SECTION ON PUBLIC HEALTH

Victor E. Schulze, Chairman, San Angelo.
T. E. Dodd, Secretary, Austin.

SECTION ON CLINICAL PATHOLOGY

John F. Pilcher, Chairman, Corpus Christi.
Wm. N. Powell, Secretary, Temple.

SECTION ON PEDIATRICS

C. B. Alexander, Chairman, San Antonio.
Francis A. Garbade, Galveston.

The State Secretary Corrects the Record.—At the instance of President Dr. H. F. Connally, and following an opinion from the General Attorney of the State Medical Association, the State Secretary has amended the Transactions of the House of Delegates, at its last annual meeting in Dallas, May 11, 1944, to show that there was no election, or confirmation of appointment, to fill the vacancy on the Committee on Legislation created by the expiration of the term of office of Dr. J. Allen Kyle of Houston.

The State Secretary, upon the advice of the General Attorney of the Association, has declined to change the record to show no election, or confirmation of appointment, to fill vacancies on the Committees on Health Problems in Education, and Cancer, as requested by the President.

It will be understood that the State Secretary has no authority to himself rule upon the legality or correctness in any particular, of any act of the House of Delegates. His responsibilities and prerogatives in the matter are set forth in the first sentence in Section 5, Chapter II of the By-Laws of the State Medical Association of Texas (page 10, January 1, 1941, Edition), which reads as follows: "The Secretary shall record the proceedings of the House of Delegates and the general meetings during annual and special sessions, and shall see that the various activities of the Association are made of record in his office." There does not seem to be any authority set up in the Constitution and By-Laws of the State Medical Association to rule upon the parliamentary or constitutional validity of any act of the House of Delegates. From the parliamentary angle, it is hardly possible for any legislative body to change its acts, but any legislative body can, under proper procedures, change its views and policies, which is usually done upon motions to rescind action and do something else about it. There are

parliamentary rules with regard to that matter.

In order to place the situation squarely before the members of the Association, and set up an explanatory record, the letter from the President, the relevant excerpts from the Transactions, and the opinion from the office of the General Attorney of the State Medical Association, are here quoted:

FROM THE PRESIDENT, UNDER DATE OF JULY 6, 1944

"On May 10th, 1944, at the last annual meeting of the House of Delegates of the Texas State Medical Association, at the time of election of officers, you will recall that nominations were made from the floor for the election of a member of the Legislative Committee to succeed Dr. J. Allen Kyle, whose term had then expired, also to fill the vacancy on the Committee on Health Problems in Education created by the expiration of the term of office of Dr. W. S. Barcus, Fort Worth, Texas, and to fill the vacancy on the Committee on Cancer, which was created by the expiration of the term of Dr. George T. Caldwell, Dallas, Texas. You will also recall that I nominated Dr. McKinley H. Crabb to succeed Dr. J. Allen Kyle on the Legislative Committee. At that juncture, a nomination was made from the floor by Dr. John T. Moore and Dr. J. E. Clarke, for Dr. J. Allen Kyle to succeed himself on that committee. The vote was taken and Dr. Kyle was declared elected by President Venable. I then protested the nomination being made from the floor, and refused to make any further nominations.

"The By-Laws adopted by the Texas State Medical Association and reprinted in 1937, provide for these committeemen to be appointed by the President-elect and confirmed by the House of Delegates. You will find this ruling in Section 7 (a-4) page 21 in the Constitution and By-Laws published in 1937. According to this ruling, it was my authority to make these appointments, and it was the authority of the House of Delegates to confirm them. The House of Delegates attempted to take that authority away from the President-elect. That not being possible, Dr. J. Allen Kyle, W. S. Barcus and George T. Caldwell, were not legally elected. There was then created a vacancy on these committees and, as President of the Texas State Medical Association, it becomes my duty to fill these vacancies by appointment. I am pleased to hand you the name of Dr. McKinley H. Crabb, Fort Worth, Texas, to fill the vacancy on the Legislative Committee; Dr. D. Bailey Calvin, Galveston, Texas, to fill the vacancy on the Committee on Health Problems in Education, and Dr. George T. Caldwell to fill the vacancy on the Committee on Cancer.

"I will ask you to publish this list and make the necessary explanation of its appearance in the next issue of the TEXAS STATE JOURNAL.

FROM THE TRANSACTIONS OF THE HOUSE OF DELEGATES, DALLAS, MAY 11, 1944.

"President Venable: Next is the Committee on Legislation, expiration of the term of Dr. J. Allen Kyle. Nominations to be made by Dr. Connally, President-Elect.

"Dr. Connally: I nominate Dr. M. H. Crabb, of Fort Worth.

"Dr. J. E. Clarke: Are other nominations in order? I would like to nominate Dr. J. Allen Kyle to succeed himself on this committee. Dr. Kyle has served on this committee for many years. He is a good, experienced man. He has the confidence of the Association, and I think he deserves to be retained in office.

"Dr. E. William Bertner: I would like to second the nomination of Dr. Kyle, and bring it to your attention that he is the South Texas member of this committee, who has served in this capacity for a long time. He has been a member of the Board of Medical Examiners, and I think he should be retained. His influence is of such importance that he should be retained on the committee.

"Upon motion of Dr. Thompson, seconded by Dr. White, the nominations were closed and the tellers directed to spread the ballots.

* * *

"The ballots were then spread, collected and counted, with the following results: Dr. M. H. Crabb received twenty-four ballots, Dr. J. Allen Kyle received forty-six ballots.

"President Venable: I declare Dr. Kyle elected.

* * *

"President Venable: Next is the Committee on Health Problems in Education, expiration of the term of Dr. W. S. Barcus. Nominations to be made by Dr. Connally, President-Elect.

"Dr. Connally. I am going to turn that over to the membership on the floor, the naming of these committees, who you want nominated.

"President Venable: Is there a nomination from the floor to fill the place of Dr. Barcus on the Committee on Health Problems in Education? Do I hear a nomination? If not, I will make a nomination.

"Dr. Shearer: I move he be re-elected to succeed himself.

"Dr. Griffin: I second the nomination.

"Dr. Thompson: I move the nominations be closed and he be elected by acclamation.

"The motion was seconded and carried, and Dr. W. S. Barucs declared elected to succeed himself as a member of the Committee on Health Problems in Education.

"President Venable: The Committee on Cancer, expiration of the term of Dr. Caldwell. Nomination from the President-Elect.

"Dr. Connally: I turn that over to the floor.

"Dr. E. W. Bertner: As chairman of your Committee on Cancer, I would ask you to please renominate Dr. George T. Caldwell.

"Dr. Eckhardt: I second it.

"Dr. Jackson: I move the nominations be closed and he be elected by acclamation.

"The motion was seconded by Dr. Thompson and carried, and Dr. George T. Caldwell declared elected to succeed himself as a member of the Committee on Cancer."

OPINION OF THE GENERAL ATTORNEY OF THE STATE MEDICAL ASSOCIATION

"Section 8 (a-5), dealing with the Committee on Legislation provides in part as follows:

"' * * * The President-Elect *shall* appoint to fill vacancies created by expiration of term of office.

' * * * These appointments *shall* be confirmed by the House of Delegates, and *shall* be considered at the time of election of officers.'

"It is evident that the above quoted provision are mandatory rather than directory.

"The record of the proceedings of the House of Delegates furnished with your letter shows the President-Elect nominated Dr. Crabb for the vacancy on the Committee on Legislation. It appears from the record that in addition to the name of Dr. Crabb the presiding officer permitted the name of Dr. Kyle to be placed in nomination, also. A vote was taken and Dr. Kyle received a majority of the votes. This action resulted in disapproval by the House of Delegates of the nomination of Dr. Crabb, who was nominated by the President-Elect. Inasmuch as Dr. Kyle was not nominated by the President-Elect, his election by the vote of the House of Delegates was not in accordance with the plain, mandatory provisions of

the By-Laws of the Association. It, therefore, results that no one was selected in accordance with the By-Laws to fill the vacancy on the Committee on Legislation. In accordance with the plain, mandatory provision of the above by-laws, a portion of which has been quoted, the vacancy can only be filled by the confirmation by the House of Delegates of the appointment made by the President-Elect at the time of the election of officers. It therefore follows that the vacancy must exist until such time as the House of Delegates shall confirm an appointment of the President-Elect, which confirmation, as provided by the By-Laws, must be made at the time of the election of officers.

"The record shows that during the proceedings of the House of Delegates, the presiding officer, in due order, announced the expiration of the term of Dr. W. S. Barcus on the Committee on Health Problems in Education. The presiding officer stated that the nomination was to be made by Dr. Connally, President-Elect. Dr. Connally thereupon stated that he was going to turn that over to the membership on the floor, as to whom the membership wanted nominated.

"The same procedure occurred when the question as to the nomination from the President-Elect to fill the vacancy on the Committee on Cancer, due to the expiration of the term of Dr. Caldwell, was announced by the presiding officer. The President-Elect announced he would turn that over to the floor.

"In the case of the vacancy on the Committee on Health Problems in Education, Dr. Barcus was elected to succeed himself by acclamation. Dr. George T. Caldwell was duly nominated to succeed himself as a member on the Committee on Cancer, and he was duly elected by acclamation.

"Section 9 (a-6) of the By-Laws, dealing with the Committee on Health Problems in Education, contains the same provisions as to the filling of vacancy created by the expiration of term of office as is provided for the filling of vacancy on the Committee on Legislation. The same is true as to the provision of Section 11 (a-8) of the By-Laws, providing for the filling of vacancy created by expiration of term of office on the Committee on Cancer.

"The President-Elect's statement with reference to the selection to fill vacancies on the Committee on Health Problems in Education, and on the Committee on Cancer, seems to me amounted to a relinquishment of the authority on his part to make the appointment, and a delegation thereof to the membership of the House of Delegates to make the appointment. Under such circumstances, it appears to me that the House of Delegates, being a deliberative body regularly in session, had the right to deal with the condition thus presented by taking the matter in its own hands, in accordance with the President-Elect's express wish that it do so. It is clearly contemplated that the Committee on Health Problems in Education and the Committee on Cancer, shall function. I believe the House of Delegates had the power, when the regular procedure for the selection of these committees was made impossible, to take the matter in its own hands and in its own way and by the method pursued fill the vacancies on said committees.

"I conclude that there is no vacancy on either the Committee on Health Problems in Education or the Committee on Cancer, but that there is a vacancy on the Committee on Legislation, which will exist until such time as it is filled in the manner and at the time provided under Section 8 (a-5) of the By-Laws of the Association."

Penicillin in the Treatment of Syphilis.—"Early syphilis, namely, primary and secondary syphilis, can now be cured in a period of from one to sixty days."

The above astounding statement, to a medical profession long inured to the difficulties of successfully treating syphilis only by a protracted procedure, tiresome to both patient and doctor, appears as the introductory paragraph in a concise, interesting paper on intensive arsenotherapy of early syphilis, presented by Dr. Arthur G. Schoch and Dr. Lee J. Alexander before the Section on Medicine during the sectional meetings comprising the last annual session of the State Medical Association of Texas, and published elsewhere in this number of the JOURNAL. This informative article presents the latest available information on the subject and should be read by every physician who treats syphilis.

Dr. C. D. Leake of Galveston, dean of the University of Texas School of Medicine, strikes an appropriate note of warning in his discussion of the paper, that time and experience have yet to prove the effectiveness of rapid methods of treating syphilis.

The principal purpose of this editorial reference, however, is to invite the thoughtful attention of the medical profession of Texas to a communication recently received in the editorial offices of the JOURNAL from Dr. Arthur G. Schoch, director of the Dallas Syphilis and Venereal Disease Clinic, with regard to the use of penicillin in the treatment of syphilis. Dr. Schoch's caution in this regard is timely, and his discussion covers the subject so completely and forcefully that it is published herewith in full. It follows:

"During the last two months, penicillin in limited quantities has been made available by the War Production Board to practically all communities throughout the United States. As a result, I have received numerous inquiries from practitioners of medicine throughout the State of Texas about the use of penicillin in the treatment of syphilis. Invariably, the doctor-in-charge wishes to treat a patient for a syphilitic infection which is either completely inactive, namely, latent or previously treated syphilis, Wassermann fast syphilis, with penicillin.

"Those of us who are working under the National Research Council Penicillin Panel are concentrating all of our efforts on the treatment of early syphilis, primary and secondary, and late syphilis manifesting some activity clinically.

"There are no data available as to the effectiveness of penicillin in the treatment of latent syphilis, or Wassermann fast syphilis.

"There will appear very shortly in *The Journal of the American Medical Association* a series of three papers: one by Dr. John Mahoney of the U. S. Public Health Service, one by Dr. John H. Stokes of the University of Pennsylvania, and one by Dr. Joseph Earle Moore of Johns Hopkins Hospital. These three papers will present the most up-to-date results obtained in the treatment of syphilis, both early syphilis and active late syphilis. These papers should be carefully read by all interested in the problem.

"The primary purpose of this communication is to discourage the use of penicillin where it is not indicated by virtue of the stage of the syphilitic infection under consideration. The civilian supply of

penicillin is still not great enough to waste this valuable drug in amounts ranging from 1 to 4 million units per person in the treatment of syphilis where it is *not* indicated.

"A satisfactory curative schedule for early syphilis is already fairly well established. A *probable* satisfactory dosage schedule for late syphilis in the active stage is now being investigated. There are no data on which to outline a system of treatment for syphilis which is latent, asymptomatic (congenital or/and acquired) or Wassermann fast. More time and more penicillin will be required before we have the answer to the proper treatment of latent syphilis.

"It is strongly urged that practitioners in this state proceed cautiously with a new procedure which is admittedly safe and admittedly effective in certain types of syphilitic infection and about which nothing is known in certain other types of syphilitic infections."

INTENSIVE ARSENOTHERAPY OF EARLY SYPHILIS

ARTHUR G. SCHOCH, M. D.
AND
LEE J. ALEXANDER, M. D.
DALLAS, TEXAS

Early syphilis, namely, primary and secondary syphilis, can now be cured in a period of from one to sixty days.

The one-day treatment for early syphilis consists of fever therapy in a fever machine for eight hours, during which time the patient receives, intravenously, three to four hundred milligrams of phenarsine hydrochloride (mapharsen). This method of treatment was developed by Simpson, Kendell, and Rose. It is still purely in the experimental stage and is being evaluated by the Chicago Intensive Therapy Center, under the direction of Kendell and Karkosch.

The first attempted intensive method was five-day intravenous drip. It was developed by Hyman, Chargin, and Leifer at Mount Sinai Hospital in New York. Furthermore, Elliott and associate evaluated this method on 1,600 cases.

A modified, or rapid drip, method was devised by Shaffer of Detroit, requiring one to two hours for the intravenous drip instead of twelve.

The syringe method of treatment, varying from six to ten days in length, with and without fever (intravenous typhoid vaccine) has been used by Thomas and Wexler of New York.

All of the above mentioned methods of treatment were carried out on hospitalized patients.

Schoch and Alexander treated over 200 patients with the syringe method in ten days. All were ambulatory patients, coming to an out-patient clinic.

Eagle and Hogan, as a result of experimental studies in rabbits, suggested a triweekly schedule on ambulatory patients in which mapharsen is administered by the syringe method three times a week for a period of sixty to ninety days, with and without the addition of bismuth.

We have treated over 1,000 patients with the triweekly method.

For over a year now, the Army of the United States has used a method of treatment consisting of two injections of mapharsen per week, with the coincidental administration of bismuth, lasting over a period of twenty-six weeks (a total of forty injections of mapharsen and sixteen injections of bismuth during this period).

The standard method of treatment for early syphilis required a period of eighteen months of weekly injections of arsenical, given in courses, combined with bismuth, given in courses.

One can see from the above resume that the standard eighteen months' system of treatment has been telescoped downward into a maximum period of six months (Army) to a minimum of ten days for ambulatory patients.

Treatment of early syphilis in hospital patients, furthermore, has been intensified and telescoped into a ten-day maximum period down to a one-day minimum period.

One can draw several general conclusions or deductions at present as follows: (1) The shorter the duration of treatment the greater the risk, from the standpoint of serious and fatal treatment reactions. (2) The therapeutic results of all of these rapid methods of treatment are approximately the same. (2a) The addition of fever enhances the therapeutic activity, that is, the percentage of cures, but increases the risk to the patient. (2b) The addition of bismuth to any of the above mentioned schedules enhances the therapeutic activity percentage of cures without increasing the risk to the patient. (3) From a practical standpoint hospitalization is undesirable and any rapid method of cure necessitating hospitalization, generally speaking, is inferior to that which can be applied to ambulatory patients.

Treatment reactions of the major type are almost exclusively hemorrhagic encephalitis which, generally speaking, occurs in one patient out of every one hundred. Death results from this complication in one patient out of every three hundred (five or ten day treatment). Women are definitely more susceptible to this complication than men are.

When treatment consists of intravenous

From the Dallas Syphilis and Venereal Disease Clinic, Parkland Hospital, and the Department of Dermatology and Syphilology, Southwestern Medical Foundation, Dallas, Texas.

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arsenical therapy in the form of arsenoxide (mapharsen) in combination with fever, a second serious complication makes its appearance in the form of acute nephrosis.

The safest procedure of the group listed above, obviously, is the twenty-six weeks system of treatment now in use by the Army. The most hazardous, obviously, would be the one-day treatment, combining intravenous mapharsen with fever therapy.

None of these methods, except, perhaps, the twenty-six weeks Army routine, is safe in the hands of the physician busy with general practice. The triweekly schedule carried out over a period of two or three months, with or without bismuth, is probably safe in average experienced hands. All other techniques described above, which are effective in from one to ten days in early syphilis, should be carried out only by experts and should not be attempted by the inexperienced.

Quantitative serologic tests for syphilis are essential to all procedures, except the twenty-six weeks Army routine.

The time required for the serologic tests for syphilis to become negative after treatment varies from a few weeks to six months. Periodic quantitative tests indicate a definite curve downward to negative, except in treatment failures (relapse, sero-resistance, neuro-recurrence).

PENICILLIN

Penicillin was used first by Dr. John Mahoney of the United States Public Health Service to treat four cases of primary syphilis less than one year ago. All of these patients are apparently well.

During the past six months, over 1,000 patients with syphilis have been treated with penicillin in a study coordinated and directed by the National Research Council.

Penicillin cures active syphilis in a short time, without risk of treatment reactions, but the percentage of permanent cures, total dosage, and time required are factors being studied and yet unknown.

ABSTRACT OF DISCUSSION

Dr. C. D. Leake, Galveston: One should be careful of the word "cure." Technically in medicine, "cure" should mean the removal of the cause of a disease together with all the symptoms resulting from that cause. As yet, we have no direct evidence that any form of syphilis therapy removes the cause. The best evidence indicates that the organism causing the disease is driven by effective chemotherapy deeply into the tissues, where natural processes may render it innocuous, but where it may later again become active with resulting symptomatology.

Certainly the rapid treatment of syphilis with mapharsen, as described by Drs. Schoch and Alexander, is a great step forward in the management of syphilis, since it results so promptly in halting infectiveness. It will be many years, however, before we will be in a position to judge how fully satisfactory rapid treatment is.

Erlich's original hope with organic arsenicals was to "cure" syphilis with a single massive dose. His disappointment has not deterred us from hoping that we may approach his goal in other ways. While there is much enthusiasm for rapid treatment with mapharsen, it would be wise for us to be cautious in our judgment of its long-range effectiveness.

Dr. Edward Randall in the Fever Therapy Clinic of the John Sealy Hospital, Galveston, has demonstrated that artificial fever will assist in breaking penicillin-resistant syphilis, as well as arsenic-resistant syphilis. While the hazards are considerable, as Drs. Schoch and Alexander indicate, they may be reduced by careful individualized study and handling of the patients concerned.

THE CLINICAL USE OF PENICILLIN

A Report of 115 Cases Treated in an Army Hospital

MAJOR C. F. WOLLGAST, M. C., U. S. ARMY
McCLOSKEY GENERAL HOSPITAL,
TEMPLE, TEXAS

Penicillin was first made available to McCloskey General Hospital on July 25, 1943. During an eight month period since that date, 149 cases have been accepted for treatment. Of these, 115 cases have had a reasonable period of observation following treatment, the results of which are summarized in this report. Some of the cases included have been reported by Major Champ Lyons[10] in his recent publication. The remaining 34 patients are still receiving treatment or have been treated too recently to be included.

The history, production, purification and properties of this antibiotic have been discussed adequately in recent literature. This action of penicillin on specific bacteria is of primary importance in the selection of cases for treatment, and therefore it will be emphasized in this discussion.

ACTION AND SELECTIVITY

The findings of Dawson, Hobby, Meyer, Chaffee and others[3] indicate that penicillin is both bactericidal and bacteriostatic. Gardner[7] noted an interference with cell metabolism, resulting in a disturbance of multiplication and changes in morphology. Of practical consideration is the fact that this cell damage is produced by constant contact and not by brief exposure.

Most gram positive bacteria and three gram negative diplococci are sensitive to penicillin. Hobby, Meyer, Chaffee and others[9] reported that the pneumococcus and hemolytic streptococcus are extremely sensitive; Staphylococcus aureus, meningococcus, gonococcus, Streptococcus viridans, Bacillus substilis, clostridia and others are less sensitive in the order named. The colon group of bacteria, hemophilis influenza, Bacillus pyocyaneus, Bacillus proteus, certain

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strains of Staphylococcus albus, etc., are prolific even in strong concentrations. This sensitivity may be determined by various methods. The multiple dilution method of Dawson is probably most accurate, but, in ordinary hands, is time-consuming and is subject to contamination. A simple, more rapid and relatively accurate method has been devised by Captain H. E. McDaniels of this hospital. A sterile strip of blotting paper, saturated with dilute penicillin (50 units per cc.), is placed in the center of an inoculated culture plate. After eighteen hours of incubation, the common infecting organisms may be isolated from the periphery, and sensitivity can be estimated by the zone of inhibition in the center of the plate. Other methods are necessary for bacteria requiring special media.

SELECTION OF CASES

The limitations imposed by the scarcity of material have enforced strict selection of cases. Good results can be expected only by adhering to certain principles.

Bacteriology.—Considering the sharply defined selectivity of penicillin, the primary requisite in every case must be the determination of the infecting organism. In vitro, determinations should be made on all doubtful strains. Cultures were grown and examined in almost all cases in the series to be reported here. For the most part, only those patients infected with penicillin susceptible organisms were accepted for treatment. In certain cases it was impossible to obtain cultures, and the results reëmphasizes the above opinion.

Adequate Medical Care.—For the present at least it is preferable that infections have failed to respond to other logical forms of therapy before receiving penicillin. Sulfonamides should be given a reasonable trial, except in Staphylococcus aureus bacteremias. When previous sulfonamide dosage seems insufficient, the blood level of sulfadiazine is brought to 15 mg. per cent for a period of at least three days, and if no improvement is noted or the patient manifests sensitivity, he is considered acceptable. The full benefits of therapy for anemia, reduced plasma proteins, avitaminosis, etc., should have been obtained.

Adequate Surgical Care.—Disappointing results and unjustified criticism of the drug will result without proper surgery. We are in agreement with Lyons[10] that foreign bodies, *e. g.*, sequestra, metallic fragments and bone plates, must be removed. Penicillin is effective in the presence of pus only when it is injected into the abscess cavity, joint, pleural space or other closed body cavities. We insist that localized pus be drained before treatment. Penicillin therapy is an excellent preoperative measure, but the resultant improvement may mislead the surgeon into operative delay.

ADMINISTRATION AND DOSAGE

The material is usually supplied as a crystalline powder in ampoules containing 100,000 units. Loss of potency is rapid when the powder is dissolved, and therefore solutions are prepared fresh daily. We use sterile pyrogen-free normal saline for preparation of a concentrated solution (5,000 units per cc.) and a dilute solution (250 units per cc.). These concentrations are arbitrary.

Parenteral Administration.—The necessity for constant or frequent dosage can be appreciated by reviewing the work of Rammelkamp and Bradley[12] and Rammelkamp and Keefer[13, 14] on the absorption, excretion, and distribution of penicillin. Due to the rapid excretion, it is necessary to administer the drug by constant intravenous drip or by frequent injections. The optimum inhibition is produced by the constant presence of the drug at the site of infection. In extremely ill patients the drug is administered by continuous intravenous drip; this method has been described by Herrell[8] as most effective with minimal dosage. This route requires constant attendance and has proven impractical in our hands for the treatment of a patient over a period of several weeks, or in the treatment of numerous patients simultaneously. Our early cases were treated by the intravenous route, but the great majority were treated by intramuscular injections at a three-hour interval, as suggested by Dawson and Hobby.[4]

Our cases required on an average of 10,000 to 20,000 units every three hours for a twenty-four hours' total of 80,000 to 160,000 units. The daily dose was varied with the sensitivity of the organism rather than with the severity of the infection.

The total dosage, as can be noted from the accompanying chart, is variable in individual cases. In our opinion there is no logical reason for decreasing dosage as the infection subsides, for at this stage the organism may have developed some resistance to penicillin. That bacteria may develop resistance to penicillin has been established by McKee and Houck,[11] although the virulence of these resistant organisms is markedly reduced.

Local Administration.—Open wounds are packed with fine mesh gauze saturated with dilute penicillin (250 units per cc.) and then sealed with vaseline gauze. Dilute solution is also used for injection into sinus tracts and into catheters which have been buried deep in operative wounds. For injection into closed cavities 5,000 to 15,000 units daily was

found to be adequate. Penicillin should not be used for irrigation. Dressings are done once daily, using sterile technique, attendants and patients being masked. Particular local care is emphasized.

Since the degree of bacterial sensitivity in common infections has been well established and can be predetermined in each case, no attempt will be made to classify our cases upon the basis of bacteriology, but rather upon the basis of disease. The surgical conditions which failed to respond to treatment, in nearly all instances, can be attributed to faulty selection of cases. In reviewing the results it should be considered that several diseases—actinomycosis, nephritis, ulcerative colitis, etc., were treated from an experimental standpoint.

The average age of our patients was 27, sixty-eight were between 20 and 30, the youngest was 8 days of age and the oldest was 50 years.

Penicillin is of proven value in the treatment of osteomyelitis, particularly at the onset of the infection. Healing in our series of 20 cases has been relatively slow and the total dosage required more than with other infections. However, improvement has been

CLINICAL DIAGNOSIS	Method of Administration						Treatment Days — Parenteral			Treatment Days — Local			Total Dosage Units			Duration of Disease (Weeks)			Results		
	No. of Cases	I. M. and Local	I. V. and Local	I. M.	I. V.	Local	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Apparently Cured	Improved	Failures	Doubtful
BONE and JOINT																						
Osteomyelitis	20	14	3	2		1	28	6	66	32	10	81	3,102,000	720,000	8,160,000	18½	1	90	16	4		
Compound Fracture	1	1					23			33			2,280,000			2			1			
Suppurative Arthritis	1	1					16			12			1,860,000			1½			1			
Bursitis (hip)	1			1			33						3,520,000			9			1			
Tenosynovitis, Gonorrheal	1			1			5						400,000			2			1			
SOFT TISSUE INFECTIONS																						
Cellulitis	12	7	3	2			29	7	54	32	7	65	3,000,000	920,000	7,360,000	6½	½	13	12			
Chronic Infected Wounds	11	3				8		27	16	19 32	11	31	15,000 833,000	400,000	1,050,000	14 9½	3½ 4	26 13	8 3			
SKIN																						
Diseases	8	2		6			10	5	22	6	5	11	400,000	240,000	1,940,000	27	1	86	6	2		
Indolent Ulcers	4					4				28	11	45	15,000			23	17	34	4			
Infected Burn	1	1					31			31			2,900,000			4½			1			
Infected Skin Graft	1	1					25			28			3,000,000			2			1			
Carbuncles and Furunculosis	5	2		2		1	12	4	42	25	12	42	1,200,000	320,000	720,000	7	1	25½	5			
CHEST																						
Pneumonia	5			5			8	3½	11				670,000	280,000	1,200,000	1	1/7	2½	3	2		
Empyema	3	3					37	25	51	51	25	81	3,866,000	2,820,000	4,960,000	7½	4	11	3			
Mediastinitis	1	1					15			15			2,040,000			1½						1
GENITO-URINARY																						
Nephritis	4			4			22	13	31				1,980,000	1,040,000	2,960,000	9½	2	17	1	3		
Prostatitis	1			1			3						240,000			13			1			
Gonorrhea, Salpingitis	1			1			2						160,000			1/3			1			
Pregnancy— 8 Months	1			1			3						240,000			10			1			
Cystitis	1				1		17						2,040,000			8				1		
BACTEREMIA	8			4	4		26	9	85				3,105,000	1,800,000	6,910,000	2	½	3½	8			
BRAIN and MENINGES																						
Brain Abscesses	4	4					14	6	19	25	18	32	1,696,000	690,000	2,160,000	5½	1/3	15	1	3		
Meningitis Str. Viridans	1	1					16			16			2,005,000			1½			1			
INFECTED POST-OPERATIVE WOUNDS	4	4					27	17	34	36	27	44	3,018,000	2,400,000	3,750,000	11½	5½	25½	3	1		
PERITONITIS	3			3			4	3	5				545,000	480,000	600,000	1	½	1½		3		
ACTINOMYCOSIS	3			3			51	36	65				5,086,000	3,675,000	7,920,000	5	1½	13		3		
CHRONIC MASTOID	1		1				18			18			2,020,000			52			1			
IRIDOCYCLITIS	1			1			19						2,280,000			26			1			
ULCERATIVE COLITIS	1				1		24						1,720,000			19				1		
PYLEPHLEBITIS	1			1			36						3,840,000			7			1			

AUTHOR'S NOTE: Five cases not included in the above chart are as follows: 1. A case of chronic empyema with bronchopleural fistula, which was treated as a preoperative measure for a contemplated lobectomy. This patient responded well, but was not operated on. 2. A patient eight months pregnant, suffering from subacute bacterial endocarditis, was treated. She improved markedly and delivered normally. Treatment was discontinued after delivery, because of insufficient material. 3. An ulcerative throat infection associated with a reduction of granulocytes was misdiagnosed as agranulocutosis. Subsequently a diagnosis of aleukemia leukemia was made. This patient died. During treatment the infection was controlled and this would seem to demonstrate that penicillin is of value in the treatment of infections associated with a decrease in granulocytes. 4. A malignancy of the right antrum was treated for sinusitis and osteomyelitis of the maxilla for a short time, until the diagnosis was corrected at operation. 5. A case of persistent jaundice was treated a few days preoperatively for a carbuncle and furunculosis. At operation a malignancy of the head of the pancreas was found, and treatment was discontinued. The skin infection was controlled.

more rapid than with any other type of treatment. These cases had not responded to other treatment over a period of many weeks. The local signs of inflammation—redness, swelling, pain, discharge and odor, were decreased or disappeared entirely within three days. All patients gained weight and had an improved outlook. These cases were considered apparently cured when there was no longer evidence of infection and after the open wounds had been closed for a reasonable period. In 5 cases the femur was involved. The remainder include: tibia and fibula 4, mandible 3, os calcis 2, radius and ulna 2, humerus 1, sternum 1, maxilla 1, and phalanx 1. The failures were: mandible 2, tibia and fibula 1, and radius and ulna 1.

The compound fracture was the result of a traumatic amputation of the upper extremity with comminution of the proximal humerus. A suppurative arthritis of the right knee joint, secondary to a puncture wound, was treated by means of intramuscular injection and injection into the joint cavity. Recovery in this case was complete. The infected bursa was in the left hip and did not respond until it was drained. After this, healing was complete within a short time. The tenosynovitis involved the flexor tendon of the right hand and was gonorrheal in origin.

All cases classified as cellulitis were seriously ill. One patient developed gangrene of the thigh muscles following a repair of a hernia of the fascia lata. In this case it was necessary to excise the distal three-fourths of the vastus externus and rectus femoris muscles with exposure of the femur. This wound was left open, but healed rapidly as a result of local and parenteral penicillin. Another patient was admitted with severe subcutaneous gangrene of three months' duration, involving the right lower extremity. There was massive skin loss, drainage was profuse and foul and the patient was markedly depleted. This patient was sensitive to sulfonamides, but responded remarkably to penicillin therapy. He has been skin-grafted and is now ambulatory. Another patient had a perirectal abscess, which had extended retroperitoneally, requiring drainage in both flanks. He was moribund when treatment was initiated but responded rapidly to treatment. A severe case of Ludwig's angina was cured after six days of treatment. Several severely infected amputation stumps were treated. All cases in this group recovered and are examples of the effect of penicillin upon infections involving tissues with excellent blood supply. Local and systemic evidence of infection decreased with a rapidity that could only be appreciated by personal observation.

Infections of a chronic localized character not involving bone were classified as chronic infected wounds. Eight cases were cured with local application alone. Three wounds were less accessible to local application and required parenteral medication. These cases are not as serious as many others, but morbidity in this stationary type of infection can be sharply reduced with little expenditure of material.

The eight cases of skin diseases were all of an intractable nature. Two cases of severe impetigo, one in a baby eight days old, and another, a bullous type of infection of many months' duration, in an adult, were cured within a few days. An erysipelas infection in a 50-year-old male, who was sulfonamide sensitive, required seven days of treatment. Three cases of pyodermia, two associated with eczema and involving the entire body, and the other located in the perineum, were greatly relieved within forty-eight hours, and there was no evidence of infection when they were discharged. A case of sycosis vulgaris and one of lupus erythematosis disseminata received adequate treatment, but were not improved.

Three carbuncles and two cases of furunculosis, not responsive to sulfonamides, were treated and cured.

Of great interest to us was the rapid healing of four cases of leg ulcer, which averaged twenty-three weeks of hospitalization prior to treatment. One case, a small Meleney type of ulcer, had been hospitalized frequently during an eight month period. The total material used locally was equivalent to one intramuscular dose. Apparently, when the local resistance of the tissue is in balance with a low grade infection the ulcer persists, but when the infection is inhibited healing is rapid.

One large infected burn was treated as a preoperative measure prior to skin grafting, and the result justified the use of the drug. One postoperative infected skin graft of 140 square inches was saved by penicillin therapy.

Three of five pneumonias were cured. Pneumonococci were cultured from the sputum in three instances; in another, streptococci were predominant; and in the fifth no organism was isolated. The atypical pneumonia improved by lysis, the course of the infection being unaffected by penicillin. The other failure had an associated bronchiectasis and continued to have a temperature elevation. Treatment in this case was discontinued after a few days.

Three chonic empyemas, all of which had previous open drainage, were cured. The average weight gain was 20 pounds. In one

acutely ill patient there was an associated cellulitis of the chest wall. The result in the treatment of a case of mediastinitis is doubtful. We are certain that the patient would not have recovered without further extensive surgery. However, penicillin may have been a factor in checking the infection temporarily.

A preliminary report of 4 cases of nephritis in various stages is included. Further information will be obtained as these cases are observed over a longer period. It seems fair to state at this time that no appreciable improvement was noted in 3 cases, all of which were of a subacute or chronic nature. The fourth, an acute case secondary to an infected throat, improved as manifested by a drop in blood pressure from 190/108 to 135/70, disappearance of swelling of the face and extremities, and a reduction of the blood urea from 25 to 14, as well as a decrease of albumen and red blood cells in the urine. The duration of treatment in this case was thirty-one days. It is questionable if this improvement should be attributed to penicillin. One case of chronic prostatitis has remained free from symptoms for a period of several months following three days treatment. Gonorrhea in a patient eight months pregnant and a case of gonorrheal salpingitis were cured within three days. Besides the cases of tenosynovitis and iridocyclitis, these are the only gonorrheal infections being reported. A severe cystitis with ulceration of the bladder, from which Staphylococcus aureus was cultured, failed to respond to treatment.

We are most enthusiastic over the results in 8 cases of bacteremia. Hemolytic staphylococcus aureus in 7 instances and hemolytic streptococcus in 1 instance was cultured from the blood. No additional positive blood cultures were obtained after twenty-four hours of treatment. These patients were transferred to McClosky General Hospital from surrounding hospitals after other methods of treatment had failed. All patients recovered with no evidence of endocarditis or other permanent damage. Two patients with persistent fever improved rapidly after abscesses were drained.

The results with brain and subdural abscesses have been discouraging. Two of the cases were of long duration when received for treatment; both patients died. In one case, secondary to an empyema, an abscess developed while the patient was in this hospital; he was treated early. The spinal fluid cell count of 6,900 decreased to 45, signs of meningeal irrigation subsided and the patient was apparently recovered; at this time treatment was discontinued. Within a few days localizing signs developed, penicillin was again administered and an attempt was made to drain this abscess surgically. He did not respond following the operation and died the same day. Postmortem examination in all of these cases revealed multiple abscesses. The ineffectiveness of penicillin in the presence of localized pus is again emphasized, these abscesses being multiple, difficult to localize and impossible to drain. Another case did not improve following surgical drainage and penicillin was administered. This patient has now completely recovered.

One patient developed meningitis following a head injury. The organism cultured from the spinal fluid was Streptococcus viridans. Sulfadiazine was administered until the spinal fluid level was 33 mg. per cent. He did not respond and was transferred for penicillin therapy. He was treated by the intramuscular and intrathecal routes. The spinal fluid was thick and difficult to drain. He did not improve for a period of three days after treatment was started, at which time 40 cc. of air was injected following the introduction of penicillin into the subarachnoid space. Within twenty-four hours improvement was marked. He has completely recovered and has been discharged from the hospital.

Four postoperative infected wounds were treated, but they responded slowly. Three were cured and the other improved but failed to heal completely during treatment.

Three cases of generalized peritonitis from which Bacillus coli and Staphylococcus aureus were cultured were unaffected. These cases demonstrate the uselessness of treating mixed infections of the peritoneum when the predominant organism is a gram negative bacillus.

The first case of actinomycosis was treated over an eight weeks' period, and during the first week the patient improved. Thereafter the infection remained stationary. He was then treated with sulfanilamide with good results. The additional two cases were treated by alternating one week of penicillin with one week of sulfanilamide. This method has resulted in the apparent cure of these patients. The cervical region was involved in these three cases.

The one case of mastoiditis was of one year's duration and the patient had been operated on twice. The case of iridocyclitis, gonorrheal in origin, was markedly relieved of pain, photophobia and lacrimation within twenty-four hours. Ulcerative colitis was unaffected in this single case. The case of pylephlebitis was secondary to an appendiceal abscess. The patient had been acutely ill for

a period of several weeks with a daily elevation of temperature to 104 F. He chilled frequently, his pulse was rapid and his general condition was poor. No chills were noted after the twenty-four hours of treatment. However, it required a period of ten days before his temperature became normal. Recovery was complete in this case.

Of incidental interest is the recurrence of malaria in an osteomyelitis patient being treated with penicillin. Trichophytosis present in several cases was unaffected. A tularemia patient developed an abscess in the left epitrochlear region; this was injected with penicillin on two occasions but remained unchanged.

During the course of treatment frequent smears and cultures were taken when possible on all patients. Mixed infections were present in most open wounds. The predominant organism by far was hemolytic Staphylococcus aureus. Bacillus pyocyaneus was usually present, and becomes more prolific as the pathogenic organisms are controlled. This bacterium did not seem to affect the process of healing. Staphylococcus albus, nonhemolytic Staphlyococcus aureus, hemolytic and indifferent streptococci, Streptococcus viridans, pneumococcus and Bacillus subtilis infections have been treated in this group.

Urticaria resulted from treatment in six instances, four were mild and two were severe. A temperature elevation attributed to penicillin occurred in five instances.

SUMMARY

The early experience of an Army General Hospital with penicillin is described. A carefully chosen group of 115 cases, representing a wide variety of clinical types of infection in which other forms of therapy had proved ineffective were treated with penicillin. Many patients of this series were seriously ill when received for treatment and it seems certain that penicillin was a life-saving measure in several instances.

The necessity for careful laboratory studies for the susceptibility of the infecting organism is emphasized.

The intramuscular method of administration has been effective and most practical in our hands, though in fulminating infections continuous intravenous drip is of advantage the first few days of treatment. Where a closed cavity is involved injection of penicillin into the infected cavity should be done in addition to other methods of administration. The necessity for removal of foreign material and the drainage of localized pus is brought out.

To be effective, penicillin must be administered in sufficient amounts at frequent enough intervals to maintain a constant inhibitory level during the course of the infection.

CONCLUSION

Penicillin has proven of definite value in the treating of a diverse group of infections, some of which were chronic and had stubbornly resisted other types of therapy; others were fulminating and of an alarming nature.

It is believed that penicillin, if available, should be used in cases of Staphylococcus aureus bacteremia without preliminary trial of the sulfonamides.

Results were found to be in direct relation to the care used in the selection of cases.

All members of this staff and the laboratory personnel were unusually coöperative, and are in a great part responsible for the results obtained.*

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*AUTHOR'S NOTE: Since this paper was prepared, more than 100 additional cases have been treated at McCloskey General Hospital.

PENICILLIN INJECTED INTO THE BRAIN

What is believed to be the first reported case of the injection of penicillin directly into the brain as an adjunct to injecting it into the spinal column for the treatment of meningitis is reported in *The Journal of the American Medical Association* for July 8 by Captain William S. McCune and Captain Jack M. Evans, Medical Corps, A. U. S. This case of staphylococcic meningitis is presented, they say, chiefly to show that injection into a ventricle or cavity of the brain as an adjunct to the spinal column route of administration is possible without untoward reactions and with good effect. Introduction of a needle into the ventricle in the acute stage of meningitis, they warn, should be performed with caution, and not until penicillin has been given intraspinally for several days.

THE SUCCESSFUL TREATMENT OF DIABETES

COL. ALEXANDER MARBLE, M. C., U. S. A.
Harmon General Hospital
LONGVIEW, TEXAS

The constant improvement in the treatment of diabetes is attested by the increasing length of life, the earlier detection and lessening of specific complications and the growing capacity of diabetic individuals to engage in useful occupations. These are matters of great importance because at the present time well-considered estimates place the number of diabetics in the United States at about 800,000. This means that there is 1 diabetic in each group of 165 or 170 members of the population at large with a much greater incidence in certain selected groups weighted as to one or more of the following: heredity (diabetes in family), age (over 40), sex (female), body build (obese), residence (urban) and racial stock (Jewish).

The results of modern treatment are gratifying alike to the physician and to the large army of diabetic persons. Both are stimulated to renewed efforts to keep standards at a high level. However, one still hears frequently the comment by physicians that success is often hampered by the patient's inability or lack of desire to cooperate. One internist recently said that he was discouraged with his group of diabetic patients because it seemed that almost every one of them either presented a complicated situation or would not follow the rules of treatment outlined. Although it is true that the diabetes of some patients is of such a character as to present very difficult problems, and that certain patients will remain irresponsible and uncooperative in spite of any advice, nevertheless, the vast majority has the disease in a form which can be readily controlled. Furthermore, these patients can be taught to follow the rules of good treatment provided these rules are simple enough to allow them to lead an essentially normal, useful life. These considerations have prompted me to outline those points which I believe are helpful in the successful management of persons with diabetes.

1. EDUCATION OF THE PATIENTS

With many non-diabetic patients who come to the doctor's office it suffices to take a careful history, to do a careful physical examination, to have the necessary laboratory tests carried out and then, after having made a diagnosis, to prescribe appropriate treatment. With the diabetic patient the situation is vastly different and the completion of the above studies fulfills only part of the responsibility of the physician. At the very first visit the physician must begin the education of the patient. Once the diagnosis has been made, the nature of the disease should be carefully explained to the patient and the idea impressed upon him that this is not a disease of days, weeks or months but, in our present state of knowledge, must be considered as one of life-long duration and that plans must be made accordingly. He must be told that following the initial treatment and adjustment of the diabetic condition, the patient must for most of the time, be personally responsible for his day-by-day treatment. He must be encouraged to study authoritative yet easily understandable diabetic literature so that he may become well informed regarding his disease, keeping in mind that, other things being equal, the patient who knows the most will live the longest and happiest.

Although some patients do not require hospitalization at the inception of treatment and many others can, if necessary, be started on therapy without it, there is no doubt whatever but that a period of seven to ten days so spent is of great value, particularly if in a hospital in which not only is there provision for proper dietary control, laboratory studies and special examinations but also for the instruction of the patient himself. Such instruction should be both personal and in groups. At the New England Deaconess Hospital in Boston, for years a lecture to patients has been given twice daily by a doctor, nurse or dietitian in addition to repeated personal conversations. There is much to be said for group instruction with a disease of this type. Points can be brought out and illustrations made in vivid fashion to such groups, which later serve as reminders of the basic facts. The instructor of such classes must present his material simply and enthusiastically and patiently review it again and again, keeping in mind that the majority of diabetic patients are elderly, may of them arteriosclerotic and many of them without much education. It is astounding how adept intelligent patients become in the matter of the calculation of diets, the substitution of foods, and other specialized procedures necessary for the successful management of diabetes.

During the period of hospitalization, whether it be the initial one or an interval examination, the patient will gain much by conversation with fellow patients and by observation of the complications of the untreated or poorly-treated case. This is particularly true if diabetic patients, both with and without surgical complications, are

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housed in common wards, so-called "borderline wards of medicine and surgery." He is not likely to forget his personal contact with the patient who was admitted seriously ill in diabetic coma or the elderly patient who had his leg amputated because of a gangrenous toe.

It is freely admitted that not all patients can be started with hospital treatment as outlined, particularly at the present time when civilian hospitals are crowded and understaffed. However, if such is not possible then it is the duty and responsibility of the physician to take sufficient time at repeated office visits to impart to the patient this much needed information.

2. DIET

In prescribing a workable diet for a diabetic patient the following requisites must be met:

1. It should contain adequate carbohydrate, which in most persons will amount to 150 to 200 Gm. a day with up to 250 Gm. per day for children.

2. It must contain enough protein to offset the normal wear and tear of the body and in growing children and adolescents to permit proper and complete development. In adults sufficient protein must be supplied to allow at least ⅔ to 1 Gm. per kilogram of ideal body weight per day and in growing children as high as 4 Gm. per kilogram of body weight per day may be required.

3. It must contain that amount of fat which will enable the individual to maintain his body weight at, or preferably slightly below, the value called for in standard tables. Individuals already obese must be given low fat diets and those too greatly underweight must be allowed larger amounts of fat than the average. In practice the daily amount varies for adult patients from 50 to 140 Gm. and in most instances from 80 to 100 Gm. Most diets for adults will provide from 1,600 to 2,400 calories per day (25 to 35 calories per kilogram of body weight.)

4. Since the diabetic diet is one which will be followed over years of time it is imperative that it be adequate in all respects and include those foods providing vitamins, minerals and the necessary amount of roughage.

5. In order to secure the cooperation of the patient over years of time, the actual food must be appealing, easily obtained, satisfying as to hunger and prescribed in form and schedule that will differ as little as possible from that eaten by other members of the family. With the exception of the so-called "free diets" and other bizarre types, I think that all interested in diabetes will agree that within reasonable limits the exact dietary prescription is not as important as the insistence upon a definite program from which deviations are not permitted and dietary indiscretions prohibited. Worst of all is the dietary treatment in which a patient is handed a sheet that lists "foods allowed" and "foods forbidden."

A preliminary period of perhaps six weeks in which the patient weighs his food at each meal is very helpful. The weighing is not an end in itself but simply a means to an end. It is a method of training the hand and eye of the patient to judge, often with surprising accuracy, portions of various foods which will be encountered from day to day. The experience should train him to such an extent that he will be able to choose his food properly wherever he may be. If scales are not available, the size and portions of food may be illustrated by wooden and paper models and prescriptions written in household measures.

3. INSULIN

Despite the relatively high degree of dissemination of medical knowledge in this country, a disappointingly small percentage of diabetic patients receive insulin. From closely observed groups we know that 75 to 80 per cent of patients will benefit from its use. All too often the doctor follows the request of the patient to avoid insulin if at all possible, whereas actually a much better policy is to give insulin to every diabetic patient unless some good reason exists for not doing so. That good reason may be of course, the fact that the diabetes is so mild that with slight restriction of diet, hyperglycemia and glycosuria are controlled. Other patients with the milder degrees of diabetes will need one dose of protamine zinc insulin given daily before breakfast. Those with a more severe grade will need in addition to that dose an accompanying dose of rapidly-acting insulin, either regular or crystalline. There are very few patients indeed whose diabetes can not be satisfactorily controlled by protamine zinc insulin alone, or in combination with rapidly acting insulin, all injections being made in the morning before breakfast with no more insulin during the rest of the day. This method of administration appeals to the patient because it allows him to make all injections at one time with no more inconvenience until the following morning.

Recalling that protamine zinc insulin has its action for at least twenty-four hours, one uses that dose which will provide a satisfactory blood sugar and a sugar-free urine daily before breakfast. Provided the patient's diet and activities are relatively constant from day to day, and barring the presence of infection, it should not be difficult with

most patients to keep the fasting blood sugar within a relatively small range with values preferably below 140 mg. per 100 cc. and without fail below 200 mg. per 100 cc. With patients with the milder degrees of diabetes, a single injection of protamine zinc insulin which provides for a satisfactory blood sugar and a sugar-free urine before breakfast will, in most instances, accomplish satisfactory control of the condition during the rest of the day. However, with patients with the severe grades, despite control in the fasting state, there may appear considerable hyperglycemia and much glycosuria after breakfast and during the rest of the day if protamine zinc insulin is used alone; it is to these patients that the accompanying dose of rapidly-acting insulin is given before breakfast. The best index as to the size of the dose of regular or crystalline insulin is found in the blood sugar and urinary sugar tests just before the noon meal. Here again the attempt should be to use that dose which will provide a satisfactory blood sugar and a urine which is free from sugar or nearly so.

Once the initial adjustment has been made, then the regulation of the amount of insulin may be made from time to time with ease and in a very simple manner. Patients are taught that the most important specimens of urine are those in the morning before breakfast (not the overnight specimen) and those before the noon meal (not the first voiding after breakfast). Increases or decreases of 2 to 4 units at a time may be made in either or both types of insulin, keeping in mind that the dose of protamine zinc insulin is varied according to the urine test before breakfast and the dose of regular insulin is varied according to the test before the noon meal.

If, despite good control during most of the day, there appears considerable sugar in the urine during the late afternoon and early evening, this may be cleared up in most instances by shifting food from lunch and supper to breakfast with a slight increase in the amount of the rapidly-acting insulin given before breakfast.

In recent years various types of insulins have been used in an attempt to secure one superior to protamine zinc insulin. One goal has been to prepare a type which would provide both a slow and a rapid action. These insulins, which have included histone zinc insulin and globin (zinc) insulin, have been used for a number of years experimentally with sizeable groups of patients; globin (zinc) insulin has recently been offered for sale on the open market. The advantages of these newer types of insulin over protamine zinc insulin are not impressive. The fact is that by varying the amount of modifying substance such as protamine, histone or globin and by varying the content of zinc, and the *p*H, one can produce an almost indefinite number of modifications of insulin with correspondingly different rates and durations of action. Satisfactory control of the condition of most diabetic patients can be obtained with any of the insulins named above. However, in keeping with the principles outlined earlier in the paper, the aim should be to make the treatment of diabetes as simple as possible. Consequently it would seem desirable to limit the number of insulins released for public sale to a minimum and actually at the present time that would appear to be only two, some form of rapidly acting insulin and some form of slowly acting insulin.

Also for a period of years attempts have been made to modify the action of insulin by different combinations of regular insulin and protamine zinc insulin. MacBryde[1] has found that if these two insulins are mixed in equal quantities the resulting product has a 75 per cent slow effect and a 25 per cent rapid effect. He reports good success with its use, stating that in the great majority of cases a single injection daily allows better control than is possible with a simple injection of market protamine zinc insulin. The writer has had no experience with this modification of insulin.

4. EXERCISE

No account of the successful treatment of diabetes would be complete without a word as to the value of physical activity. In patients in whom, by nature or by injection, a satisfactory amount of insulin is present in the body, exercise augments the blood-sugar-lowering effect of the insulin in addition to producing the non-specific beneficial effects such as the development of muscles. In addition to promoting well-being, moderate exercise regularly taken usually permits or even necessitates a lowering of the total amount of insulin given daily.

5. FOLLOW UP EXAMINATIONS

In almost no disease is it so important to secure regular interval examinations as in diabetes. This is imperative not only to give the patient the benefit of more careful tests under controlled conditions than are possible at home and to renew his enthusiasm for careful treatment but also to allow the opportunity to give him the benefit of advances in knowledge and treatment which, during modern times, have constantly occurred in the field of diabetes. Patients seen by physicians in hospitals and clinics treating large groups of patients should be referred to their

family doctors for frequent periodic examinations and should return to the diabetic clinic at such intervals as are necessary. Every diabetic patient needs a check-up at least once a year and preferably twice a year, and physicians should not hesitate to remind them of this. Many others need to be seen every three months, and with children and adolescents a visit each month is necessary to keep them in line. The histories, physical examinations and laboratory studies at such times should be thorough in order to detect changes at the earliest possible moment. Very often at such follow-up visits the patient's history may be corrected or amplified; whereas at the first visit he may have stated that he had no diabetic relatives, at the second visit he may report that on closer inquiry he found that certain relatives did have or have had the disease. In the course of time other of his relatives may develop the disease and periodic questioning enriches the history to this extent.

Such visits allow the patient and physician to become well acquainted and furnish the patient with an opportunity to have answered the problems which have arisen. Patients should be encouraged to keep a record of their urine tests, insulin dosages and other pertinent data and to bring them in chart or tabular form for inspection by the physician.

Physical examinations at follow-up visits should be careful and thorough and include the feet, particularly in elderly patients in whom such examinations may mean the avoidance of gangrene in an extremity rendered vulnerable by impaired circulation.

6. TREATMENT OF COMPLICATIONS

To provide easier and better treatment of diabetic patients, it is essential that complications be prevented, if at all possible, and that if they arise they be treated early and energetically. Although a diabetic patient may develop any of the ailments common to the rest of mankind, there are certain conditions which occur uniquely or frequently. The unique complication, that of diabetic coma, is a preventable one and barring the sudden onset of an acute infection or thyrotoxicosis, does not occur in patients whose diabetes is kept under good control. Well-trained patients know the difference in the symptoms and signs, and the laboratory findings in diabetic coma and an insulin reaction. They know that when they feel ill they must report to their physician immediately. If the condition is that of diabetic coma then it becomes the responsibility of the physician to institute proper and energetic treatment, preferably in a hospital with adequate facilities, including a laboratory in which work can be done at night and on Sundays and holidays as well as in the daytime. Space does not permit a full discussion of the treatment of diabetic coma but the following are the main guiding points:

1. The immediate and fearless use of truly large doses of insulin. In the treatment of diabetic coma in general and in discussions regarding it, there is far too much said and done regarding the aids in treatment, important though they be, and far too little about an adequate amount of insulin without which recovery can not take place.

2. The use of abundant fluid and salt to combat dehydration, electrolyte loss and shock. In the author's opinion the use of alkalies is unnecessary and may be harmful. The use of glucose in the first six hours of treatment or during the stage before the blood sugar and carbon dioxide content or combining power have begun to return to normal is to be discouraged not only because the glucose can not be utilized until sufficient total insulin effect is obtained in the body but also because in dehydrated patients with impaired kidney function it may precipitate renal block and favor uremia.

At the George F. Baker Clinic from August, 1940, until April, 1944, there have been only 2 deaths (1.8 per cent mortality) in 112 successive cases of diabetic coma with a plasma carbon dioxide content of 20 volumes per cent or less. One of these patients had osteomyelitis and multiple abscesses and died six and one-half hours after admission to the hospital. The other patient, 73 years old, lived only one and one-half hours after hospital admission, and autopsy disclosed a coronary thrombosis.[2]

It is the physician's duty also to advise the patient, particularly if he is elderly, regarding the frequency of arteriosclerosis in the diabetic patient, and particularly in the vessels of the feet and legs, and furthermore to teach him simple principles with a view to preventing gangrene. At each visit the physician should look at the patient's feet and feel for pulsations in the peripheral arteries. Patients must be constantly advised to keep the feet scrupulously clean, to break in new shoes gradually, to avoid burns from heaters and hot water bottles, to avoid strong chemicals such as iodine and patent corn remedies, to avoid cuts and abrasions acquired by the injudicious use of knives and razor blades in trimming corns or calluses, and to report immediately to the physician if any infection occurs. The physician in turn must appreciate the gravity of the situation in patients with impaired circulation. In most instances treatment need not be complicated and care must be taken not

to do more harm than good. Experience has shown that many times the thing that will accomplish the most has not been used, namely, complete rest in bed with consequent avoidance of dependency or trauma to the feet. Diabetic surgery is a field of its own and space does not permit a discussion of its various features. Suffice it to say that the physician and the surgeon treating the diabetic patient with infection or gangrene of the extremities should recognize a limit to conservative therapy and without undue delay advise amputation early to avoid weeks and months of unhappy invalidism in a vain attempt to save the extremity of an elderly patient who may have at most only a few years of life remaining.

At the George F. Baker Clinic of the New England Deaconess Hospital in Boston, in 1942 and 1943, a total of 68 major amputations was performed, using low spinal anesthesia. Among these there were only 4 deaths, representing a 5.9 per cent mortality, including deaths from any cause whatever prior to discharge from the hospital. The patients who died were 65, 69, 73 and 76 years old; one died of pulmonary embolism and another of cerebral hemorrhage. These results are relatively so good that it has been considered impractical to shift to anesthesia by refrigeration.[2]

The diabetic patient, particularly the untreated diabetic, is more prone to infections than the normal person and particularly to infections of the skin and the urinary tract. Fortunately, if the diabetes is brought under excellent control and kept so, the treatment of an infection is much the same as in a patient without diabetes and in this the sulfonamide drugs have had a large role in recent years just as in non-diabetic individuals.

FINAL COMMENT

It is obvious from the above discussion that the author believes in the careful, continuous treatment of diabetes with a diet which is adequate in all respects and moderately restricted in carbohydrate, with insulin freely given so as to confer its benefit on as many patients as possible, with regular exercise as befits the individual concerned and with thorough, detailed and constant education of the patient regarding diabetes and its complications. By means of the above one can justifiably hope that the complications will be reduced in number, that the length of life of diabetic patients will be prolonged and that they will be able to live and work happily and usefully. The writer does not advocate those forms of treatment which allow free diets or which pay relatively little attention to hyperglycemia and glycosuria. One of the chief difficulties in judging the relative effect of careful treatment in which control of hyperglycemia and glycosuria are attempted and of the liberal forms of treatment recently advocated, is the fact that even with half-hearted treatment most diabetic patients will carry on over years of time in a state of reasonably good health. The only statistics which are of any value in this connection are those collected after ten, twenty or more years on a given type of treatment. So great an opportunity for improvement in treatment exists everywhere that all efforts should be spent in that direction rather than in unwarranted plans of freedom from dietary restrictions.

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EVALUATION OF EYE TESTS USED IN THE EXAMINATION OF ARMY AVIATORS

COL. V. A. BYRNES, M. C., U. S. Army
AAF School of Aviation Medicine
RANDOLPH FIELD, TEXAS

The eye tests used in the examination of army aviators have always been a matter of extreme interest to those ophthalmologists on duty with the Army Air Forces. There can be little doubt that of all occupations undertaken by man flying is more dependent on the eyes than any other. For this reason the eye examination has always been detailed and complete and the standards rigid.

The examination of the eye at the present time covers ten paragraphs on the examination form and requires the completion of fifteen different tests. For purpose of discussion these tests will be grouped under the following headings:

A. Acuity of Vision
   - Visual acuity test.
   - Accommodation test.

B. Judgment of Distance.
   - Depth perception test.

C. Extra Ocular Muscle Efficiency
   - Associated parallel movements.
   - Lateral heterophoria test.
   - Vertical heterophoria test.
   - Prism divergence.
   - Angle of convergence.
   - Red lens test for diplopia or suppression.

D. Color Perception
   - Color vision test.

E. Pathology of the Visual Mechanism
   - External examination.
   - Refraction.
   - Examination of pupils.
   - Ophthalmoscopic examination.
   - Visual field examination.

Due to the high standard of ocular per-

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formance required, many applicants have been eliminated from flying training during the present war because of eye conditions. While exact figures cannot be released for security reasons, it can be stated that approximately one-fifth of all applicants are rejected for ophthalmological reasons. Of this group rejected for eye causes approximately one-half have defective visual acuity and one-third have defective color perception. The heterophorias account for an additional one-eighth and other defects for the balance of the rejections.

Because of the numbers of these rejections, the eye standards have always been a matter of extreme concern in the Air Force Medical Service. Projects are under way to relate specific eye defects to success or failure in flying but these data are not yet available. This project does not lend itself readily to statistical analysis. An individual with defective prism divergence may crash and kill himself but this does not prove that the crash was due to the defective prism divergence.

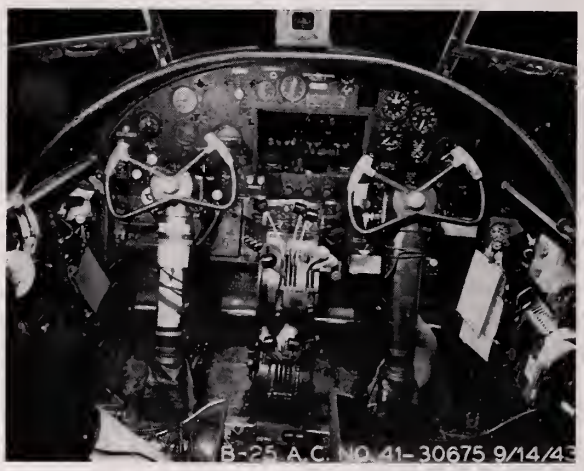

FIG. 1. Cockpit of B-25 (Mitchell) Medium Bomber. Some of the combat equipment has been removed but the multiplicity of switches, dials and controls may be noted.

Fatality rates in combat areas are likewise difficult to correlate because of the varying factors of relative changes in our own strength and in enemy strength, changes in types of aircraft flown by our forces and the enemy, the influence of weather, the differing conditions in the various theatres of war and numbers of hours and missions flown. Analyses of larger numbers of cases than has previously been possible will be required.

In the absence of such statistics some studies have recently been made elsewhere using the ability to learn to fly as the criterion of success. Such studies are valueless when considering combat pilots because the combat pilot has so many problems not experienced by an individual in merely learning to fly a plane.

Since it has not been possible to statistically evaluate the visual standards, the only other approach to this problem is a careful analysis of the visual tasks actually performed by a pilot in flight.

It is desired to present a study of typical flights in a combat type aircraft—the B-25—and to point out visual factors of importance in each phase of such flights. Only the problems of pilot or co-pilot will be considered. The problems of the navigator, bombardier, radio operator and gunners will not be discussed.

Upon entering the plane, the pilot and co-pilot start at the left side of the cockpit and check the position of each of the 45 switches and controls and the reading of the 34 dials which are present. They use a check list containing 84 items to do this. This list is printed in small type about J-2 size, and requires good visual acuity and good accommodation to read it.

The motors are then started and run up while the dials are again checked and the various switches and controls readjusted. The plane is then taxied out on the ramp where permission to taxi out on the field is requested. If radio silence is in effect the so-called "biscuit gun" is used. This shines a very narrow red, green or white beam of light on the airplane. It can be seen day or night by an individual with normal color vision. It is one of the reasons why good color vision is required.

When the pilot has been given the green light by the tower operator, he starts to taxi out onto the field. He must constantly watch for landing airplanes because they have the right of way. He must be able to see these planes early and determine their distance away in order to know whether to continue to taxi or to stop. He thus needs satisfactory acuity, depth perception and color vision in this phase.

His take-off position reached, the pilot gives his motors a final "running up" to be sure they will function properly. He adjusts the cowl flaps so the motors will not overheat, turns his gasoline selector valve to the gas tank he wants to use in the first portion of his flight, puts his propeller adjustment in low pitch, sees that the carburetor mixture is full rich, that the oil temperature has reached at least 40 degrees and the cylinder head temperature is at least 80 degrees. He sets the altimeter to the altitude of the field, sets the gyro compass to the same reading as the magnetic compass, turns the gas line valve to cross feed so that if one fuel pump fails, both engines will still get gasoline,

sets the degree of flaps he desires to use and makes many other final adjustments. Again these require acute vision with good accommodation.

He is now ready for the take-off. He waits for the green light from the tower again. He gives another glance to be sure no other planes are landing in the area in which he wishes to take off, turns his ship into the wind and opens the throttles. He uses his vision to keep the ship travelling in a straight line down the field. When it has gained sufficient speed, which he estimates by peripheral vision and by depth perception as distant objects approach, he pulls the wheel back slightly and the plane leaves the ground. As soon as it is off the ground he levels off and maintains level flight a few feet above the ground while the wheels are being retracted. This position is maintained until "single engine speed" is reached. This is the speed at which the airplane will fly and can be controlled on one motor. If one motor quits before this speed is reached, the pilot has no choice but to pull back both throttles and land straight ahead. If single engine speed has been reached, he can climb and fly satisfactorily on one motor. Maintaining this position just above the ground is the most rapid means of obtaining "single engine speed." Acuity and depth perception are needed, therefore, in the take-off to enable the pilot to keep the plane on a straight course, estimate when flying speed has been reached, and to level off just above the ground without again touching the ground.

FIG. 2. Aircraft flying just above the ground while wheels are being retracted and single engine speed is being attained just after take-off.

After the take-off the pilot will fall into his position in formation. Maintaining this position requires constant use of the factor of depth perception. In flight practically none of the adjunctive factors used in depth perception are present. These are factors which are a great aid in determining distance on the ground. There is no landscape rushing by to give an impression of speed and the plane seems rather to be standing still while the earth moves slowly beneath it. For this reason aircraft flying in formation seems to have almost a fixed relationship to each other insofar as forward motion is concerned, and one gets the impression that another plane in the formation is sliding sideways directly toward or directly away from one's own ship. The same effect is observed when a ship in formation goes up or down. It seems to jump staight up or drop straight down inasmuch as the forward motion of all ships in the formation is the same and is therefore not apparent. The motion of a plane directly toward the plane in which one is riding can be very deceiving. There is no rapidly decreasing piece of ground between to emphasize the rapid approach of the plane, and depth perception alone, based on the factors of increased size of retinal image, motion parallax, and the basic factors of convergence and binocular parallax, is the means by which collisions are prevented. The adjunctive factors of light and shadows, overlapping contours and perspective which are such an aid in determining distances on the ground are not present under these circumstances, and it is believed this is not appreciated by the average ophthalmologist.

FIG. 3. The view of the lead ship obtained by the pilot of a "wing" ship in a normal bombardment formation.

This ability to appreciate depth becomes more and more a factor when evasive action is taken to avoid anti-aircraft fire and the fire of enemy pursuit ships. Bombing planes fly in close formation for protection, in order that one ship's guns may cover a vulnerable area of another. When they bank violently and turn rapidly every ship in the formation must turn in a split second or there

will be mid-air collisions. These planes usually fly from 25 to 100 feet apart. When it is realized that they cruise over 250 miles per hour or about 400 feet per second, the short time it would take to close the small gap between planes is evident. Inasmuch as satisfactory depth perception is dependent upon acute vision and satisfactory muscle balance, the importance of these factors is obvious.

Many missions will be flown at altitudes above 20,000 feet where lack of oxygen becomes an important factor. If oxygen is used properly no visual difficulty should arise. At high altitudes, however, even on pure oxygen the individual obtains less oxygen than at ground level. It has been demonstrated by many workers[1, 2, 3] that under anoxia, phorias tend to become tropias and individuals develop diplopia at altitude. Ocular fatigue alone may have the same effect and this is, of course, accentuated by the extremely long flights being made by our aircraft at present and especially the ones made at high altitudes. The importance of a satisfactory basic muscle balance under these circumstances is therefore obvious. Even pilots who meet our present rather strict standards will frequently complain of at least transient diplopia at very high altitudes or near the completion of very long flights when they are extremely fatigued.

During the flight of bomber formations, fighter type planes may approach. At the speed of present craft, if a head-on approach is made, the planes may possibly be first noticed a mile away. They may be friendly, or enemy. They must be identified as soon as possible because in five seconds they will be within gunfire range and in six seconds they will pass. A decision as to their identity must be made in two to three seconds. This will require excellent visual acuity and upon the clearness of that retinal image may hang the life or death of the pilot and his crew.

Color vision may again become very important to the pilot. Signal flares fired from the leading ship in the formation may be used to direct the formation. These flares of different colors will direct different actions. In supporting ground troops, targets for bombardment by air may be designated by colored smoke flares or artillery smoke shells which burn with colored smoke. The pilot may be required to identify strange airplanes at night by the recognition signals they give with colored lights on the airplane.

Colored signal panels may be used on the ground to convey information to the ship flying over. Identification of targets may require proper color perception and the location of safe emergency landing areas is also aided by normal color vision. All these jobs are real in combat and normal color vision is required. It has been conclusively demonstrated that individuals whose color vision is definitely defective on testing with pseudo-isochromatic plates will make errors on colored lights and colored signal flares, especially when distance and haze decrease the apparent intensity of the color.

This same type of B-25 bomber may be utilized on strafing missions in which case it is flown at high speed at tree-top level for security. In this problem the pilot must fly as low as possible without hitting trees, buildings, etc. In addition, he may fire the guns to strafe troops and may do skip and torpedo bombing. It requires acute vision to enable him to locate himself in relation to his map because the ground flies by at a terrific rate. He must have excellent depth perception to allow him to fly as low as possible without running into the trees. Location of targets must be rapid or he will pass before he can fire or drop his bombs. A second run over a target is usually suicidal because the advantage of surprise has been lost, so it is important that targets be recognized as early as possible and attacked on the first run over them. This again comes back to the necessity for as nearly perfect visual

FIG. 4. Instruments used in "blind" flying enclosed inside the white line. The gyro compass and artificial horizon above; the altimeter, air speed meter, turn and bank indicator and rate of climb indicator below. Other instruments are also used to a lesser extent.

acuity as is obtainable. It will be remembered that it is this type of plane which has been modified to fire a 75 mm. cannon from the nose and its use upon the enemy is no more deadly than the ability with which it is sighted.

Many missions in the present war are flown through extremely bad weather. For such flying the pilot relies entirely upon his blind flying instruments. There are five such

instruments to which he must refer constantly—the artificial horizon and gyro compass primarily and the turn and bank indicator, the airspeed meter and the rate of climb indicator and altimeter secondarily. In addition, the magnetic compass, radio compass and radio dials will be checked frequently. This type of flying requires constant, very close attention. Visual acuity, proper muscle function and accommodation are very important ocular functions here.

Recognition of other war material besides airplanes is important. In attacking ground targets our own tanks must be distinguished from those of the enemy and our own lines must not be strafed. Our own warships and transports must be recognized. Again, this requires maximum visual acuity.

When returning from a mission, certain definite recognition procedure must be followed in order to avoid being fired upon by friendly troops. Terrain landmarks must be recognized and the approach made from only certain specified points. Frequently, recognition signals in the form of flashes of certain colored lights will be required.

In landing the pilot again makes numerous adjustments of the airplane controls requiring use of vision before he makes his final approach. As he nears the ground the best possible function of his depth perception is required in order that he may level off at the right point. A landing of any aircraft is really stalling that aircraft just off the ground. If it is stalled too high it will drop in with possibly serious consequences. If the nose is not pulled up soon enough the plane may be flown right into the ground. When men return exhausted from combat their ability to make these fine discriminations in depth and timing are impaired. Accidents result from these causes alone even in men who meet our present rather strict eye standards.

Problems of night combat and the night vision tests being used cannot be discussed here because of the secret nature of some of the equipment involved in this type of combat, and the fact that it is an extremely large subject which would make this presentation excessively long.

DISCUSSION

From this short discussion of the use of the eyes in combat, the importance of the ocular functions listed in the grouping at the beginning of the article is emphasized. It will be recalled that after eye pathologic conditions are ruled out the four chief functions of interest are: acuity of vision, judgment of distance, extra-ocular muscle efficiency and color perception.

It is obvious that efficiency of the extra-ocular muscles is necessary in order that the visual axes are properly aligned or satisfactory acuity of vision, depth perception and color perception will be impossible. Extra-ocular muscle efficiency will not be considered separately in the capitulation below because it is actually an adjunct to the accomplishment of the other three functions.

It is also obvious that without satisfactory visual acuity, depth perception will be defective. The blurring of the retinal image in

FIG. 5. Approach for landing. This photograph was taken just before the nose was pulled up into landing position. At the landing speeds of modern combat ships this is a critical determination.

defective acuity renders the asymmetry of the retinal image in the two eyes ineffective. When this asymmetry cannot be appreciated, the factor of binocular parallax becomes inoperative and the individual's depth perception impaired.

For the above reasons it is difficult to list various ocular functions under any single heading, but an attempt is made to list below some uses of the eyes in flying under the function primarily concerned.

A. *Acuity of Vision.*
   I. Near Point.
      (a) Preflight check of switches, instruments and controls, and their constant recheck in flight.
      (b) Reading the pilot's check list.
      (c) Reading of maps, bombardment charts, and radio facility charts.
      (d) Tuning the radio and radio compass.
      (e) In instrument flying.
   II. At Distance.
      (a) To detect approach of other planes when taxiing out on the field.
      (b) To quickly recognize friendly and enemy aircraft in the air and on the ground.
      (c) To recognize surface ships, landing craft, tanks and friendly troops.

(d) To locate targets from high or low level.
(e) To sight machine guns and cannon and drop bombs and torpedoes in minimum altitude bombing.

B. *Judgment of Distance.*
(a) Estimation of flying speed in takeoff (by speed of approach of objects).
(b) To maintain minimum altitude while reaching single engine speed.
(c) To maintain minimum altitude in bombing and strafing missions.
(d) To maintain proper position in formation and avoid midair collision.
(e) To determine when effective gun-fire range has been reached.
(f) To determine distance from anti-aircraft bursts to determine necessity for evasive action.
(g) To determine the proper point at which the nose should be pulled up in landing.

C. *Color Perception.*
(a) To identify the color of signals flashed from control tower to plane.
(b) To recognize the colors of flares.
(c) To recognize the colors of signal identification lights.
(d) To recognize the colors of smoke shells and bombs used to designate targets.
(e) To recognize colors of signal panels used in the ground for ground to air signalling.
(f) To identify types of terrain flown over, whether swampy, dry or rocky.
(g) To identify targets of known color.
(h) To correctly interpret terrain and altitude shown on maps in colors.
(i) To identify the colors of wing tip and navigation lights used at night.

SUMMARY

An attempt has been made to point out a few of the visual tasks of a pilot of a Medium Bomber in combat and to point out some of the exacting tasks to which he puts his eyes. Until statistical evaluation of the eye standards for flying are available such standards must be prescribed on the basis of some similar type of job analysis.

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TANTALUM TO BE AVAILABLE FOR CIVILIAN USE

Johnson and Johnson Research Foundation, a nonprofit organization, founded in 1940 for the purpose of financing research in universities and hospitals, along medical and surgical lines, has recently announced that the War Production Board has allocated to civilian use, a satisfactory supply of tantalum plates, foil, screws and wire for the repair of broken bones, nerves and the like. This would appear to be quite a service for the civilian population and is in line with the proposed gradual diversion of war medical material to civilian use.

NEWER KNOWLEDGE OF VIRUSES AND VIRUS DISEASES*

S. EDWARD SULKIN, PH. D.
DALLAS, TEXAS

During the past two decades the study of viruses has grown from an obscure and little known subject into a branch of medical science equal in importance to bacteriology itself. These ultramicroscopic agents have been known to exist for more than half a century, but for many years their small size precluded truly scientific study. When they first became known, a tendency arose to assign viral origin to any disease whose causal agent was in question. Only since the first World War, when the great influenza pandemic gave impetus to the study of this group of diseases, has the subject developed precision and the list of known virus diseases begun to be differentiated. Moreover, in recent years viruses and the diseases due to them have been studied so intensively, advances have been so rapid, and contributions to our knowledge so varied and numerous, that only the major discoveries can be considered in this discussion.

The virus diseases, which are encountered in practically all specialties within the field of medicine, vary in their clinical and epidemiological manifestations just as do the known bacterial infections. Certain viruses cause disease of the central nervous system; others affect the eye; while still others may produce cutaneous lesions. The respiratory diseases caused by viruses are among the most common ailments, and numerous tropical diseases fall within this category.

CONCERNING THE NATURE OF VIRUSES

Much of the information concerning the nature of viruses has been obtained through the use of high speed analytical centrifuges, by x-ray analysis, by filtration through graded collodion membranes and through the use of electron microscopy. Since direct measurements of many of the viruses have been made from electron photomicrographs it seems desirable to discuss briefly the advances in microscopy which led to the development of this instrument.

Approximately 250 years after Antony van Leeuwenhoek, the Dutch pioner microscopist, developed the first optical microscope, the electron microscope came into being. About half a century ago designers of optical microscopes reached an impasse because of the limitations of ordinary light as a means of observation, and immediately set out to improve resolving power. This was accom-

*From the Department of Bacteriology and Virus Laboratory, Southwestern Medical College, Dallas, Texas.
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plished to some extent by increasing refraction index by use of immersion oils; by increasing the angle of the cone of light by improving lens systems; and by reducing the wave length of light by substituting ultraviolet rays for visible light. With optical lens microscopes, magnification can be obtained to about 2,000 times, while with ultraviolet light this magnification can be increased to approximately 3,000 diameters. The tiny viruses, however, were still invisible. It remained for electron optics to open new fields in microsopy. Zworykin and others of the Research Laboratory of the Radio Corporation of America have been largely responsible for the development of the electron microscope in this country. By using electrons instead of rays of light, and magnetic or electrostatic fields instead of glass lenses, it is possible to observe minute particles. To be sure, the high speed electron waves are far too short actually to be seen, but they cause the ultramicroscopic particles to produce images on a fluorescent screen where they are visible and can be photographed. With the electron microscope magnifications of 20,000 to 30,000 diameters can be obtained, and it is possible to obtain photomicrographs representing 100,000 to 200,000 times life size.

Measurements of the tobacco mosaic virus have been made possible through the discovery by Stanley[33] of a method of separating the virus in purified and crystalline form. The tobacco mosaic virus has now been studied extensively and provides a standard scale of size by which all viruses are measured. The particle size of many of the large viruses, such as those of psittacosis and trachoma, has been determined by direct visual observation, while those too small to be resolved with ordinary light have been measured by photography with ultraviolet light or with the electron microscope. The molecules of tobacco mosaic virus, as revealed by the electron microscope, appear as pencil-like structures, while those of the virus of equine encephalomyelitis seem to be circular in shape

TABLE 1.—*Epidemiological, Clinical and Pathologial Characteristics of Neurotropic Virus Diseases**

Disease	Season	Age	Course of Disease	Neurological Sequelae	Estimated Mortality %	Spinal Fluid		Pathology[1]
						Cell Count	Predominating Cells	
St. Louis Encephalitis	Late Summer	Adults[2]	Acute	Rare, Mild	20	200	Mononuclears	Perivascular cuffing; lymphocytic infiltration; nerve cell degeneration
Equine encepbalomyelitis (eastern)	Late Summer	Children	Acute	Frequent Severe	60	1,000	Early polymorphonuclears	Same
Equine encephalomyelitis (western)	Late Summer	Adults	Acute	Infrequent	15	500	Early polymorphonuclears	Same
Japanese B encephalitis	Late Summer	Adults[2]	Acute	Rare	60	150	Polymorphonuclears Lymphocytes	Same
Lethargic encephalitis (von Economo)	Spring-Winter	Any	Chronic	Frequent, mild to severe	35	100	Mononuclears	Same
Russian Forest-Spring encephalitis[3]	Spring-Summer	Adults (mostly men)	Acute	Frequent	30	25-100	Mononuclears	Same
Australian X Disease[4]	Late Summer	Mostly Children	Acute	Footnote[5]	70	100	Lymphocytes	Same
Lymphocytic Choriomeningitis	Any Season	Any	Acute	Rare	0	100-3000	Lymphocytes	See footnote[6]
Poliomyelitis	Summer-Fall	Children (mostly)	Acute	May be very severe	70 (paralytic) 5 (nonparalytic)[7]	Normal to 20,000	Lymphocytes Polymorphonuclears	Changes in the nerve cells; intranuclear inclusions; perivascular infiltration; lymphocytic infiltration
Rabies encephalitis	Any Season	Any	Acute		100	Normal to 100	Polymorphonuclears	Nerve cell changes; lymphocytic infiltration; perivascular; cuffing; *Negri bodies*

*The only known cases of Louping ill in man are those which occurred as accidental laboratory infections; hence this disease is omitted from the table. Aside from accidental infection with B virus (ascending myelitis), this disease is also unknown in man and is omitted. Postinfectious and postvaccinal encephalitides have also been omitted.

1. The intensity of the pathological lesions varies to some extent in different virus infections. The pathological changes are closely correlated with severity of the neurological manifestations.
2. Morbidity and mortality increase with age.
3. There are some indications that this disease, which is also called Verno-Aestival Tick-Borne Encephalitis, is the same as Louping Ill (Casals and Webster, Science 97:246, 1943).
4. Australian X disease has not been seen since 1926. The virus is no longer available and therefore has not been studied by present day methods of virus investigations.
5. A thorough follow-up study to determine the after-effects has never been made.
6. No pathological report of an etiologically proved case has as yet been made.
7. The fatality rate is higher in the case of children under a year and in elderly persons.

and are uniform in size. Electron microscope studies of the elementary bodies of the vaccine virus reveal rectangular particles of uniform size in which can be seen areas of concentration somewhat darker than the surrounding material.

Many of the early workers regarded viruses as minute microbes which simply could not be resolved by means of ordinary light. These agents possess the ability to multiply when introduced into living cells. There is also direct microscopical evidence that at least some of the larger viruses (elementary bodies of vaccinia) multiply by binary fission just as do bacteria. The ability to proliferate and become adapted to changes in environmental conditions is a property of the living organisms distinguishing it from inanimate matter. Green[10] suggests that viruses might be regarded as bacteria which have lost certain enzyme systems, and being obligate parasites are dependent on the metabolism of the host cell for specialized functions other than reproduction. On the other hand, some workers have suggested that they might be nonliving autocatalytic enzyme-like agents since they cannot be cultivated apart from living cells. Supporting this view was the report by Stanley[33] of the successful isolation of a crystalline protein possessing the properties of the tobacco mosaic virus. These purification experiments were later confirmed by other workers. No conclusion can as yet be drawn regarding the true nature of the viruses. The observations of Stanley have given new impetus to this field of investigation.

To aid further study and investigate possible improvements in prophylaxis, diagnosis and treatment of these diseases it is necessary to ascertain first something of the antigenic structure of the virus. Certain species of micro-organisms (*e. g.* Salmonella group) have been found to contain seven to eight separate antigens which make up the antigenic mosaic of the cell. A similar situation obtains with many viruses. The antigenic complexity may be indicated by the antibodies produced by the virus. In many instances, one type of antibody is elicited by the virus, and the other is produced by the soluble antigen which is separable from the virus. The virus apparently gives rise to the so-called neutralizing antibodies, while the soluble antigens produce antibodies which can be demonstrated by the classical precipitation, agglutination or complement-fixation tests. Only recently, Smadel, Ward and Rivers[30] found that the soluble antigen of infectious myxoma of rabbits contained two immunologically distant components which could be separated by certain physical methods. Vaccine virus has been shown to have at least five antibodies demonstrable in animals which recover from infection with this agent. Other viruses appear to be more simple; for example, in poliomyelitis the only humoral antibody which can be demonstrated is one which neutralizes the virus, and tobacco mosaic and rabbit papilloma produce complement-fixing and neutralizing antibodies which react with a single antigen. These antibodies apparently are identical, but react to the virus antigen in different ways depending upon the conditions provided for the test.

EPIDEMIOLOGY

For many years it was thought that poliomyelitis was a contact disease spread by droplet infection, the virus reaching the central nervous system from the nasal mucosa by traveling along the olfactory nerve. The recent carefully conducted studies of the pathogenesis and pathology of poliomyelitis would indicate that portals of entry other than the nasopharynx exist in the human disease. Human autopsy material, for example, has failed to reveal those lesions in the olfactory bulbs which occur when the disease is produced experimentally in the monkey by instilling the virus into the nose.[24] Evidence suggests that the alimentary tract is the usual portal of entry of the virus; according to Sabin,[25] the virus may travel from the alimentary tract to the central nervous system through two routes: (1) along the parasympathetic system into the medulla, and (2) along the visceral fibers of the intestine through the corresponding spinal or abdominal sympathetic ganglia into the spinal cord. Persistence of virus in stools of convalescents, presence of virus in stools of healthy contacts, and spread of the disease by healthy carriers and by flies further tend to strengthen this theory. Whatever the portal of entry, it is easier to recover virus from the intestinal tract than from the nasopharynx.

Present concern over the possible insect transmission of poliomyelitis is not new but merely a renewed interest in the subject. Over thirty years ago Flexner and Clark[8] carried out experiments in which they demonstrated that flies harbored poliomyelitis virus in the gastro-intestinal tract for at least forty-eight hours after feeding on spinal cords from paralyzed monkeys. Shortly thereafter Howard and Clark[17] showed that the domestic fly could carry the virus for several days on its body and for several hours in the intestinal tract. Brues[4] reported successful experimental transmission of poliomyelitis in monkeys by means of the biting stable fly. These observations were confirmed by Anderson and Frost in 1912.[1] No further ar-

ticles on the subject appeared for a number of years and the report in 1937 by Rosenow, South and McCormick,[23] that experimental poliomyelitis developed in one out of three monkeys inoculated with filtrates of flies collected during an epidemic of the disease, stimulated renewed interest and inquiry. Periodic attempts were made between 1931 and 1940 to isolate the virus from flies, mosquitoes and other insects collected in the field during various epidemics of the disease. All results were negative, probably due to inadequate methods. During 1941, however, a highly susceptible Java monkey (Cynomolgus) became available for experimentation, and this together with improvements in methods of detection of poliomyelitis virus in stool or other materials probably accounts for the almost simultaneous reports by independent groups of investigators[37, 21, 26] of successful demonstration of virus in flies collected in epidemic areas. Whatever the true epidemiology of this disease, it appears certain that many factors involving environmental temperature, presence of insects, and possibility of an extra-human reservoir of the virus must be considered.

Numerous studies have been undertaken to determine the mode of transmission of St. Louis encephalitis since the epidemic of 1933. Several investigators suggested the possibility of mosquito transmission in this disease, and the experimental transmission of the western equine virus with Aedes aegypti by Kelser[20] indicated a similar mode of spread in equine encephalomyelitis. The recent studies of Howitt and Hammon and their associates[18, 11] offer the most convincing evidence that an arthropod vector may be involved in transmission of both of these diseases. Studies of Howitt[18] have shown that these viruses are endemic in central California and that the sera of certain mammals and birds in the endemic areas contain neutralizing antibodies to these viruses. Hammon and his co-workers[12] isolated several strains of the St. Louis virus and the Western equine virus from a single species of mosquito (Culex tarsalis Coquillet) and found that this mosquito was capable of transmitting these viruses under experimental conditions.[13] Subsequently other species of mosquitoes were added to the list of possible vectors. It is possible, too, that other arthropods

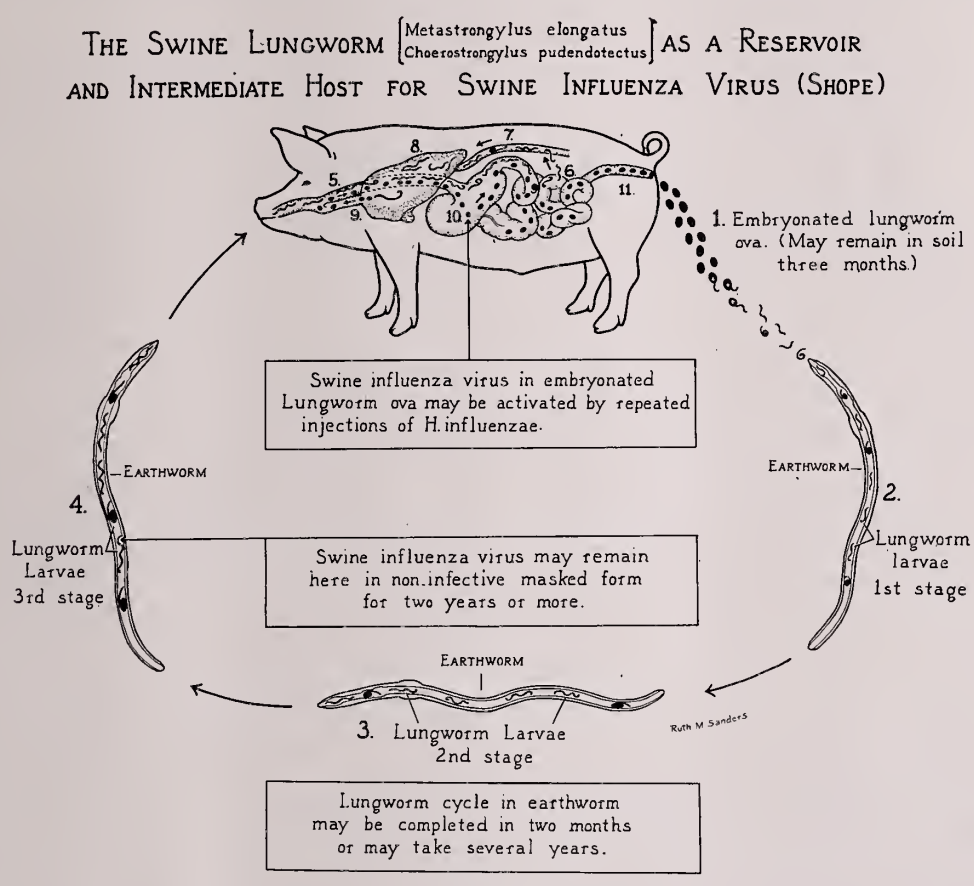
THE SWINE LUNGWORM [Metastrongylus elongatus / Choerostrongylus pudendotectus] AS A RESERVOIR AND INTERMEDIATE HOST FOR SWINE INFLUENZA VIRUS (SHOPE)
1. Embryonated lungworm ova. (May remain in soil three months.)
Swine influenza virus in embryonated Lungworm ova may be activated by repeated injections of H. influenzae.
EARTHWORM
2. Lungworm larvae 1st stage
4. Lungworm Larvae 3rd stage
Swine influenza virus may remain here in non-infective masked form for two years or more.
EARTHWORM
3. Lungworm Larvae 2nd stage
Ruth M Sanders
Lungworm cycle in earthworm may be completed in two months or may take several years.

FIGURE 1

might be capable of transmitting these diseases. Blattner and Heys[3] recently transmitted the St. Louis virus under laboratory conditions with the American dog tick (Dermacentor variabilis [Say]).

The epidemiology of many of the other virus diseases is equally perplexing. One of the greatest mysteries of epidemiology is what happens to a virus between epidemics and what causes it to reappear from its quiescent state. An important step toward the solution of this problem was made by Shope[28] when he discovered that swine lungworm (Metastrongylus elongatus and Choerostrongylus pudendotectus), nematodes parasitic in the bronchioles of the lungs of swine, were capable of harboring swine influenza virus and of transmitting it from animal to animal. Complicating this apparently simple mode of transmission is the fact that the lungworm has an intermediate host of its own. Figure I indicates diagrammatically the life cycle of the swine lungworm and represents the author's interpretation of Shope's studies concerning the swine lungworm as a reservoir and intermediate host for swine influenza virus. Embryonated eggs, which are laid by the adult female lungworm in the bronchi of the swine are coughed up, swallowed, and then eliminated in the feces (Figure I, 1). Upon ingestion by earthworms the lungworm eggs pass through developmental cycles (Figure I, 2, 3) until the third larval stage (Figure I, 4) is reached. The earthworm harboring the infective lungworm larvae is then eaten by a pig (Figure I, 5), and finally reaches the swine respiratory tract by way of the blood stream and lymphatics (Figure I, 6, 7, 8) where they become adults. The embryonated lungworm eggs which are laid in the bronchi of the swine are again coughed up (Figure I, 9),

TABLE 2.—*Laboratory Aids in the Diagnosis of Virus Diseases Affecting the Central Nervous System*[1, 2]

Disease	Detection of Virus						Detection of Virus in Vectors or Reservoirs				Tests for Antibodies		Pathology		Laboratory Animal of Choice	Laboratory Procedures of Choice
	Respiratory Secretions	Central Nerv. System	Spinal Fluid	Blood	Faeces	Saliva	Insects	Mammals	Birds	Sewage	Neutralization Tests	In Vitro Tests	Histopathology	Inclusions		
St. Louis encephalitis		+					+	+			+	+	+		Mouse	Neutralization or complement fixation[3]
Equine encephalomyelitis		+	+	+[4]			+		+		+	+	+	+	Mouse	Neutralization or complement fixation[5]
Japanese B encephalitis		+					+				+	+	+		Mouse	Neutralization or complement fixation
Lethargic encephalitis[6] (von Economo)													+			Footnote[7]
Russian Forest-Spring[8] encephalitis		+	+	+			+	+	+		+		+		Mouse	Neutralization or complement fixation
Australian X Disease[9]		+					+						+		Monkey	Not established
Lymphocytic Choriomeningtitis			+	+			+	+			+	+	+		Mouse Guinea Pig	Animal inoculation; complement fixation; or neutralization[10]
Poliomyelitis	+	+			+		+			+	+[11]		+	+	Monkey	Inoculation of monkeys with stools[12]
Rabies		+				+		+			+	+	+	+	Mouse	Smears or sections for negri bodies
Aujeszky's disease (Pseudorabies)[13]				+				+							Rabbit	Animal inoculation
Ascending myelitis (B virus)[13]		+					+				+		+	+	Rabbit	Animal inoculation
Louping ill[13]				+			+	+			+		+		Mouse	Neutralization

1. The pluses refer to observations that are considered established.
2. Bwamba and West Nile fevers, which are virus diseases affecting the central nervous system, are included among the tropical diseases. The postinfectious and postvaccinal encephalitides have been omitted.
3. Neutralizing antibodies appear slowly after recovery.
4. Western type.
5. Neutralizing antibodies appear earlier than complement-fixing antibodies.
6. Causative agent not known but thought to be a virus.
7. Because of insufficient data the laboratory procedure of choice is not as yet established.
8. There are some indications that this disease, which is also called Verno-Aestival Tick-Borne encephalitis, is the same as Louping Ill (Casals and Webster, Science 97:246, 1943).
9. The virus is no longer available and therefore has not been studied by present day methods of virus investigation.
10. Complement fixing antibodies are present before neutralizing antibodies make their appearance.
11. The value of the neutralization test is controversial; hence this test is of doubtful significance.
12. Not feasible under ordinary circumstances.
13. The only known known cases are those which occurred as laboratory infections.

swallowed (Figure I, 10) and eliminated in the feces (Figure I, 11), thus completing the cycle. The virus is present in a masked noninfective form from which it can be provoked into activity by appropriate stimuli (intramuscular injections of H. influenza suis). The fact that noninfective virus is able to survive for at least two years in the lungworm larvae in the earthworm and, in addition, for several months in the swine respiratory tract would explain survival of the virus between epidemics. Futhermore, Shope observed that transmission of swine influenza virus by lungworm takes place only if experiments are conducted during the fall and winter months which fits well with the seasonal incidence of swine influenza. What causes fully active swine influenza virus to become noninfective when taken up by the lungworm and to resume its infectivity when it again finds itself within a susceptible swine, is still unknown. These observations, probably the most important in the field of virology in recent years, suggest that a similar cycle might operate in certain virus diseases of the human.

A similar situation prevails in another disease, "salmon poisoning," which occurs in dogs, coyotes and foxes and is apparently due to a virus transmitted by flukes.[29] The eggs of the trematode, Troglotrana salmincola, are passed in the feces of the host (dog, coyote, fox). The first intermediate host is a snail (Goniobasis plicifera silicula). The cercariae which emerge from the snail penetrate into fish of the salmon family and become encysted in the kidneys, muscles and other organs. Infection of the final host occurs when infected fish is eaten. The virus of "salmon poisoning" may persist in the various stages of the fluke throughout its life cycle.

PROPHYLAXIS AND THERAPY

When the study of viruses first began it was believed that artificial immunity could not be induced unless active virus was used in preparing the vaccines. While this may be true in the case of some viruses, it appears that a considerable amount of protection is afforded in many cases by means of inactive viruses (equine encephalomyelitis, influenza, rabies, and others). To be sure, immunity conferred with inactive agents is of short duration and it is usually recommended that vaccination be repeated at frequent intervals.

In recent years efforts have been directed toward the development of prophylactic measures against various diseases, both through the use of attenuated and inactivated viruses. Influenza A has received special attention.

Various vaccines have been given parenterally,[15] while others have been given intranasally.[9, 6] In studies on human beings[34] no conclusive proof of the effectiveness of vaccination against influenza A has thus far been shown. Many factors complicated evaluation of the results. In some instances an epidemic of influenza was already in progress at the time experiments were begun, while in other studies the number of individuals vaccinated was too small to be of statistical significance. Laboratory studies to determine the cause of the respective outbreaks have been incomplete. An analysis of the results of the clinical evidence concerning available prophylactic measures indicates that the formalinized complex influenza A-canine distemper vaccine of Horsfall and Lennette,[16] while not entirely effective, offers the best method which has thus far been developed.*

Little attention has been given to the problem of passive immunity because of the transient nature of the protection thus conferred. Passive immunity can be produced experimentally, however, by intranasal instillation, of small amounts of immune serum prior to inoculation with influenza virus.[31] Russian investigators[32] reported startling results following bi-weekly inhalations of vaporized antiserum given to a large number of individuals before and during an epidemic of influenza A. This work,[32] prompted Krueger and associates[22] to investigate the efficacy of prophylaxis and therapy of experimental influenza by inhalatory route. High titer horse immune serum or its globulin fraction, administered either by intranasal inoculation or by inhalation, protected mice against subsequent intranasal infection with influenza virus. Likewise, treatment of mice with horse immune serum intranasally, or globulin by inhalation, proved effective in reducing the lung lesions. At the present time certain commercial concerns are preparing high-titered bivalent antiserum (for influenza types A and B) by intravenous immunization of rabbits with purified virus suspensions. This serum is prepared specifically for inhalation prophylaxis at a time when an epidemic is first appearing in a community.

For several years a living neurotropic strain of virus was used in vaccination against yellow fever. Because of the pathogenicity of this virus for the nervous system, vaccination of the human was accompanied by adequate protecting doses of immune

*Author's Note.—In a special article (J. A. M. A. 124:982-985 (April) 1944), the Commission on Influenza, Office of the Surgeon General, United States Army, summarized the results of a clinical evaluation of vaccination against influenza using a concentrated inactivated vaccine containing the viruses of influenza types A and B. Subcutaneous inoculation of the vaccine shortly before or even after the onset of the epidemic exerted a protective effect with an attack rate of 2.22 per cent among the 6,263 vaccinated and 7.11 per cent among the 6,211 controls.

serum. The development of a strain of virus attenuated by prolonged cultivation in vitro, led to the production of a relatively safe vaccine[36] which does not require the concomitant administration of immune serum. The effectiveness of this vaccine, which has been used extensively since 1937, has been indicated by the demonstration of protective antibodies in vaccinated persons and by the curtailment of epidemics of jungle yellow fever.[5]

The need for an effective type of vaccination of man against the viruses of equine encephalomyelitis became apparent when reports of the occurrence of human infection under natural conditions, and laboratory infection resulting from exposure to the virus appeared. Recently, Beard and his associates[2] vaccinated a group of laboratory workers with formalin-treated chick embryo vaccine prepared with Eastern and Western strains of equine encephalomyelitis. No instances of infection by these agents has been observed in the vaccinated group. These observations are significant in view of the high incidence of infection among laboratory workers with the Eastern or Western types, or with the Venezuelan type of equine encephalomyelitis. According to Beard and his co-workers the immunity induced in man by formalin-treated vaccine is of a temporary nature, requiring revaccination of those continually exposed to infection. Immunity in horses resulting from actual infection is enduring in contrast to the immunity induced by injections of chemically-treated vaccine.

Not long ago, Sabine and associates[27] undertook to develop suitable and safe vaccines for protection of human beings against the St. Louis and Japanese B types of epidemic encephalitis. These workers have prepared vaccines in which the virus has been rendered noninfective by formalin. The vaccines were capable of conferring protection rapidly; could retain their potency after storage for long periods of time; and produced no ill effects on inoculation in healthy persons. The effectiveness of these vaccines in protecting against encephalitis infection by either of these viruses must await further trial under natural conditions.

Poliomyelitis has been intensively investigated in search of a method of active immunization that will be both effective and safe. Inactivated vaccines fail to produce satisfactory protection, while vaccines containing active virus, though possibly effective, may lead to active infection. A few years ago two large scale experiments on active immunization of human beings were terminated because of this danger. The recent discovery of Jungeblut and Sanders[19] suggests a possible method of vaccination against poliomyelitis. These workers claim to have successfully adapted a strain of poliomyelitis virus to mice and subsequently to guinea pigs. This strain, originally virulent for monkeys, became less pathogenic for these animals after serial passage through mice, and monkeys were successfully immunized against a virulent monkey virus by means of the mouse adapted strain. Before evaluating these experiments as to practicability it is important to establish clearly the identity of the strain presumably adapted to rodents.*

Generally speaking, serotherapy in virus diseases is ineffectual because viruses multiply within the host cells and cannot readily be affected by the action of antibodies. Once virus has invaded the living cells of the host and produced symptoms of the disease, therapeutic administration of immune serum is of little value. This view is shared by most of the authorities in the field. There are, however, a few scattered reports of apparently successful results with serum therapy in virus diseases of man, or experimental animals. The results of attempts at sulfonamide therapy in virus diseases have been disappointing. Likewise, the use of antibiotic substances (penicillin, gramicidin, etc.) has thus far produced only negative results. Although sulfonamide therapy has proven successful in trachoma, inclusion blenorrhea, and lymphogranuloma venereum, there is increasing evidence that the causative agents of these diseases do not fall within the category of true viruses.

DIAGNOSIS

The diagnosis of certain diseases of viral origin may be confused by their frequent association with other infectious processes of similar clinical manifestations. For example, influenza during the acute phase may be accompanied by infectious colds and later may be complicated by pneumonia or central nervous system involvement. Also, encephalitis may complicate such diseases as smallpox, measles, mumps, varicella and whooping cough. The study of virus diseases is rendered more difficult by the interrelationship of these maladies with other infections, both of bacterial and viral origin. Thus, there is a relationship of the common cold to influenza and the pneumonias; of psittacosis to pneumonia; and of measles to pneumonia and

*Author's Note.—Recently, Milzer and his associates (J. A. M. A., 125:704-705 [July 8] 1944) described a new completely inactivated poliomyelitis vaccine which confers a high degree of protection against subsequent intracerebral inoculations in mice of the mouse adapted Lansing strain of poliomyelitis virus. Encouraging results were also reported (J. A. M. A., 125:531-532 [June 24] 1944) with a similar vaccine for the viruses of rabies and St. Louis encephalitis. These reports are of a preliminary nature, and the results with these vaccines can only be evaluated when the completed studies are available and have been confirmed.

encephalitis. In recent years correlated clinical laboratory and epidemiologic studies have permitted investigators to dissociate certain virus diseases which present similar clinical manifestations, and to establish well-defined criteria for determining their identity.

The procedures followed in the laboratory diagnosis of diseases caused by viruses[35] are analogous to those used in bacterial infections. Conclusive evidence consists in the demonstration and identification of the virus. This may be accomplished in some of the virus diseases (psittacosis, yellow fever, influenza, and rabies) by using susceptible laboratory animals or chick embrvos instead of the ordinary culture media used for the isolation of bacteria. Once the virus is recovered, identification is accomplished by determination of the animals for which it is pathogenic, routes by which it can be injected, tissues it infects, lesions produced, and through the use of the classical immunologic reactions, that is, neutralization, complement-fixation, agglutination or precipitation reactions. Recent studies have indicated that the immunologic characteristics of the filtrable viruses are similar to those of certain bacteria, and many of the serologic phenomena as applied to the study of bacteria have been demonstrated with viruses. Although the most conclusive evidence is available when virus has been recovered from a patient and an increase in neutralizing or complement-fixing antibodies demonstrated in the convalescent serum of the same patient, laboratory studies have indicated that the serologic procedures used (neutralization and complement-fixation tests) are applicable even in the absence of virus recovery. When it is not feasible to attempt recovery of virus from tissues, immunologic tests should be carried out, using the blood serum obtained during the early stages of the disease, and again after recovery of the patient. The presence of specific antibodies is of particular significance if blood specimens taken during the acute phase are negative and become positive with convalescence of the individual.

The clinical syndrome produced by some viruses is quite consistent, permitting the physician to make a proper diagnosis with regularity, without resorting to laboratory diagnosis. This is the case with such diseases as measles, chickenpox and smallpox, but does not hold in diagnosis of all virus diseases until an etiological diagnosis has been made, and the causative agent has been identified by means of laboratory studies. The clinical, pathological and epidemiological manifestations of the infectious diseases caused by neurotropic viruses (excluding poliomyelitis and rabies) are so alike that it is practically impossible to establish the identity of a particular disease without the aid of laboratory procedures (see Table 1). The "infectious encephalitides," which embrace a number of distinct diseases of the central nervous system, must be identified etiologically if reliable epidemiological data are to be obtained, and if this group of diseases is to be properly classified. Knowledge concerning the "virus encephalitides" would be greatly advanced if the physician would make an earnest effort to secure laboratory aid for the identification of the causative virus. Recommended laboratory procedures are summarized in Table 2. Much work has been done in recent years to simplify laboratory procedures. The complement-fixation test recently described by Casals and Palacios,[7] and by Havens and his associates,[14] is sufficiently specific to differentiate the various experimental infections caused by the neurotropic viruses. This test has already yielded encouraging results when used in the diagnosis of human infections induced by some of these viruses.

Twenty-five years ago virology was practically an unknown science. Today it has assumed a major role in medicine. It is obvious that the diagnosis of these diseases is far from the exact science that diagnosis of the bacterial infections has become. In order for the diagnosis of virus diseases to reach the simplicity of that of bacterial infections it is essential that a fuller understanding of the virus itself be reached. Of recent years a great deal of such information has developed. Certain clues have been found as to their mode of spread and laboratory techniques for diagnosis have been improved and perfected. In general, the science as it grows and develops is becoming more exact, and it is to be hoped that one day the viruses will be as readily identifiable as the bacteria are today.

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ABSTRACT OF DISCUSSION

Dr. Gladys Fashena, Dallas: I should like to emphasize the point which Dr. Sulkin's very interesting paper makes concerning the desirability of using adequate laboratory methods for the diagnosis of virus disease. All too often the diagnosis of virus penumonia or encephalitis is made from an x-ray film, a blood count, or something equally nonspecific. It is important to remember to secure adequate materials for laboratory diagnosis *early* in the course of the disease when the virus itself is most readily recoverable, and before humoral antibodies are demonstrable. These studies, followed by antibody studies on convalescent blood samples, often yield information of diagnostic value. During the past winter Dr. Sulkin and I carried out some studies of this type on a group of young adults and children who were suspected of having true influenza, although their symptoms were so mild that it was difficult to decide whether or not they merely had a bad cold. Seven patients were studied by obtaining acute phase and convalescent phase blood samples and subjecting the sera to titrations of antibody against influenza virus, types A and B, using the Hirst procedure. None of the sera showed a significant change in antibody level against the type B virus, while the convalescent phase serum specimens from all seven cases showed a significant increase in antibody against the type A virus, thus warranting the conclusion that the infections were due to influenza A virus.

Dr. Ludwik Anigstein, Galveston: What is the newest development of our knowledge on the nature of inclusion bodies in viruses?

Is there any correlation betwen the morphological aspect of the inclusion bodies on their development stages and the phase of the respective disease?

Dr. Sulkin (closing): Few contributions to the study of the nature of inclusion bodies have appeared in the past decade. Concerning the nature of nuclear inclusions, there is as yet no convincing experimental evidence that any virus enters the nuclei of affected cells. It has been shown that nuclear inclusions can be produced in the experimental animal by the injection of certain chemicals; the presence of virus in these animals could be excluded with reasonable certainty. These observations complicate any studies of the nature of nuclear inclusions. The early studies of Goodpasture suggesting that cytoplasmic inclusion bodies are formed from mitochondria and neurofibrils are not convincing, yet more plausible evidence has not been presented in recent years. Whether the cytoplasmic inclusions are actually aggregates of the viruses themselves still remains to be demonstrated.

In reference to Dr. Anigstein's second question, developmental cycles have been described in connection with the agents of inclusion blennorrhea, trachoma, vaccinia, psittacosis and lymphogranuloma venereum. Only a few years ago Findlay demonstrated that the agent of lymphogranuloma venereum undergoes a developmental process similar to that of psittacosis. In view of other resemblances between these two agents, Rake and Jones studied the developmental cycle of the agent of lymphogranuloma venereum, using the yolk-sac culture method. They were able to demonstrate constant variations in infective titre in the yolk-sac, which correlated with the morphological changes. Only recently these workers demonstrated that a toxic factor is produced during the development of this agent, which is probably responsible for the symptoms suggesting toxemia in man. Further studies are required before it will be possible to correlate the stages of the developmental cycle of the various viruses with the corresponding clinical syndromes as they occur in man.

NO CHEMICAL PRESERVATIVE SATISFACTORY FOR HOME CANNING

"There is available today no chemical preservative which is satisfactory for home canning either as the sole agent used or as an adjunct to rapid heat processing methods," the Council on Foods and Nutrition of the American Medical Association advises in a report published in *The Journal* of the Association for June 3.

"The primary danger of such methods," the report continues, "lies in their ineffectiveness as sterilizing procedures, while the possibility of toxicity, although not great, must be kept in mind where such foods are consumed in sufficient quantities. The fact remains clear that, for proper home canning, reliance must be placed on careful attention to sanitary precautions and adequate methods of heating, with pressure cooking equipment for meats and vegetables and thorough cooking of fruits for the proper length of time as recommended in authoritative publications such as those of the U. S. Department of Agriculture or the various state extension services."

CONTROL OF FOOD POISONING

PAUL L. WERMER, M. D.*
WACO, TEXAS

Food poisoning presents one of the most perplexing etiological problems to both the general practitioner and public health agencies. Its incidence is on the increase during the present period because of the concentration of population in many of our cities placing greater loads upon food handling establishments, frequent change in personnel in restaurants, increased number of untrained workers and inexperienced operators complicating the problem.

In general, there are two types of bacterial food poisoning. The first depends upon a toxin generated during the growth of the bacteria. This is usually an exotoxin, botulism and staphylococcic food poisoning being good examples of this type. The second type is caused by the actual presence of the bacteria in large quantities in the foods, salmonella and streptococcic food poisoning being good illustrations of this type.

Other conditions which often are called food poisoning are those caused by: (1) the ingestion of food containing some naturally poisonous substance such as toad stools; (2) individual hypersensitiveness to certain foods; (3) the ingestion of food contaminated with a toxic chemical as Paris green on fresh vegetables; and (4) the ingestion of food infested with parasites.[3] It is not the purpose of this paper to consider these other types of food poisoning, but rather to discuss specifically the bacterial forms. A review of their symptomatology will be of value.

CAUSES OF BACTERIAL FOOD POISONING

Organism	Type	Foods Implicated	Onset	Type of Symptom
Cl. Botulinum	Toxin neurotropic	Home canned and bottled food	12 to 48 hours	Paralytic
Staphylococcus	Toxin, entero	Milk foods, elaborate "fussed over" foods, stored foods	2½ to 6 hours	Severe nausea, vomiting, diarrhea
Salmonella	Bacterial	Improperly stored foods	6 to 72 hours	Severe pain, nausea, vomiting, diarrhea
Streptococcus	Bacterial	Milk foods	5 to 12 hours	Mild nausea diarrhea, colic

GROUP I

Botulism is characterized by dysphagia, dyslalia, dyspnea, diplopia, and paralysis of the respiratory system. This disease characteristically appears twelve to forty-eight hours after ingestion of the responsible food, usually home-canned.

Staphylococcic food poisoning is characterized by nausea, vomiting, acute prostration, and even death. It appears characteristically two and one-half to five hours after eating the responsible foods. It is found chiefly in foods that have been "fussed over" or stored for long periods, such as salads and elaborate dishes, since the staphylococci require five to twelve hours growth to elaborate sufficient enterotoxin to cause symptomatology. Investigation has often disclosed skin lesions on the hands of food handlers as the cause of contamination.

GROUP II

Salmonella food poisoning is characterized by severe abdominal pain and griping, diarrhea, chills and fever, frequently violent vomiting, prostration, and occasional death. This type of food poisoning characteristically appears from six to seventy-two hours following the ingestion of food that has been contaminated by rat or mouse leavings, or by flies and other insects.

Streptococcic food poisoning is characteristically less severe; the symptoms are nausea, vomiting, colicky pains, and diarrhea with onset five to twelve hours after ingestion of bacteria. Investigation of these cases often discloses a food handler with an upper respiratory infection or pharyngitis.

From this review, it becomes evident that several important factors must be considered in an investigation of food poisoning. First, samples of the food ingested must be procured; second, samples of feces and vomitus must be obtained; third, the temporal or time relationship between ingestion of the food and appearance of symptoms is of importance; fourth, the health of the food handlers must be investigated. A case history of all affected, therefore, is essential. An epidemiological form or questionnaire will provide the necessary information which often will simplify the detection of the responsible food.

To control food poisoning, public health agencies employ a long term program consisting of generalized inspection and supervision of all food handling agencies and proper education of food handlers. This program is familiar to all trained public health workers, and is not of great interest to the general practitioner. The public health agency must be prepared to meet the sudden emergency of an outbreak of food poisoning. It is essential that the medical profession give immediate notice to the health department upon the appearance of the first few cases. This is necessary so that specimens of feces and vomitus may be collected before the use

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*Director, Waco-McLennan County Health Unit, Waco, Texas.

of any medication which might interfere with laboratory findings.[1, 2] The knowledge obtained will be of value to the physician since he will know with which type of food poisoning he is contending. Its value to the health officials cannot be overestimated since the type of food poisoning encountered often indicates the point of breakdown in the inspection system, *i. e.*, rodent control, improper refrigeration, and so forth. It is characteristic of this disease entity that small familial outbreaks are seldom reported to the health department for investigation. When institutions are involved or when guests at a banquet or picnic suddenly succumb, the dramatic impact of a large number of cases calls it to the attention of the health department for investigation. Very often we are asked why certain individuals who partook of the same meal and ate the same foods failed to become ill. The answer must be based upon the many variables to be considered, such as the amount eaten of the food responsible for the symptoms; the individual resistance of the host; and the time of ingestion. An occasional occurrence is symptomatology purely on a psychic basis; the vision of people retching influences the psychically sensitive individual to do likewise.

To illustrate with actual cases the importance of early reporting and early appearance of the health department on the scene, three experiences are cited.

1. A large institution had an outbreak of dysentery diagnosed as amoebic by the resident physician. Four days after the outbreak of the disease, health authorities were notified. Investigation by the public health laboratory disclosed that the forms seen were not Endamoeba histolytica, but Endamoeba coli, and that the cases had evidently been some type of bacterial food poisoning. These cases were reported too late to be able to prove the etiology definitely. However, routine inspection of this institution was requested thereafter by the health department.

2. A restaurant, on routine inspection, was found to be harboring rats; its storage facilities were such that cereals could be contaminated easily. A warning was issued to the operator of the conditions in his restaurant, and he was called upon to make the necessary repairs, and to change his storage facilities. Two weeks later, several severe cases of food poisoning in the city were traced back to this establishment. A second inspection disclosed rat droppings in cereals and pies. The report of physicians came too late to prove the salmonella organisms responsible by culture of feces, but the circumstantial evidence obtained in this case was sufficient to degrade the restaurant and temporarily suspend its permit until corrections were obtained.

3. An educational institution had a violent outbreak in which 41 per cent of students eating the noon-day meal became ill. Twenty-four hours after the outbreak, the health department was notified. Specimens of vomitus and feces were no longer obtainable as symptoms had subsided. However, specimens of some foods and a complete list of foods ingested were obtained. A complete epidemiological questionnaire of all students involved was also obtained. All food handlers were in good health with no evidence of external lesions. The sanitation of the cafeteria and kitchen was excellent. The following facts stood out:

1. Sixty-two per cent of the students became ill between 4 and 6 p. m., within four to five hours after ingestion of the noon-day meal.

2. One hundred and eighty-four of the 185 ill students ate creamed eggs and/or milk.

3. Laboratory examination of all foods, with the exception of one of three samples of reconstituted milk, were negative. The single sample found positive showed marked contamination by staphylococci and other organisms.

4. Reconstituted canned milk was used in the preparation of the creamed eggs.

Since this outbreak occurred four to five hours after the ingestion of the noon-day meal, it was evidently caused by the staphylococcic enterotoxin. The high correlation obtained of 184 out of 185 ill students having ingested reconstituted milk or eaten food prepared with the same would indicate that this food was the source of the outbreak. Further confirmation was found in the form of one highly contaminated specimen of reconstituted milk. The one patient who became ill without having partaken of either of these foods was disclosed not to have eaten at the dormitory that day or the day previous. This patient became ill after seeing several of her dormitory companions succumb to the illness. She probably represents one of the psychical type of cases occasionally encountered.

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THE RAPID TREATMENT CENTER PROGRAM OF TEXAS

M. S. DICKERSON, M. D.
(Director, Venereal Disease Control, State Department of Health)
AND
CHESTER M. SIDELL, M. D.
(Field Consultant, Rapid Treatment Centers, State Department of Health)
AUSTIN, TEXAS

When we speak of the Texas Rapid Treatment Center Program, we are speaking in fact of the existing four treatment centers, viewed in the aggregate and considered in relation to the general venereal disease program and the public health agencies concerned in that program. In discussing this program we shall, therefore, describe first the center itself, its organization and functions, then see where and how these become a part of the general venereal disease program, and finally how the center and its functions can best be tied up with the existing health agencies.

Let us consider, then, the nucleus of the program—the center itself. The individual treatment center has two functions: first and most important, the medical treatment of indigents who have venereal disease in a communicable stage; second, the social redirection of its patients in order to reduce as much as possible the number of reinfections.

The first requisite of a treatment center consists of a building or buildings suitably subdivided for handling the various activities of the center and the various types of patients to be treated. It is felt inadvisable for example, to place promiscuous juveniles in close association with commercial prostitutes.

The center should be located near a metropolitan community in order to provide easy access to living quarters for the staff, and to facilitate procuring the supplies, groceries, and so forth, needed in day-to-day operation. On the other hand, it should be isolated enough to permit patients some freedom for outdoor activities.

The operation of the center rests on three principal divisions, the Medical Department, the Redirectional Department, and the Department of Maintenance and Operation.

The medical department is headed by a physician who has been specially trained in rapid methods of venereal disease treatment. It includes a staff of nurses sufficient to provide the twenty-four hour nursing service which rapid treatment methods require. As a number of routine and some special laboratory tests must be performed on patients prior to and during administration of rapid forms of treatment, the medical department requires a competent laboratory technician and a suitably equipped laboratory.

As regards gonorrheal cultures and serological tests for syphilis, these can best be done and are being done by branch laboratories of the State Department of Health Laboratory.

As a by-product of the medical treatment of patients, the center is in a position to provide valuable data on rapid treatment methods. For this purpose the medical department is provided with a record analyst who abstracts case records, makes arrangements for and records the medical follow-up on each patient.

Finally the medical department is provided with a liaison officer who acts as a direct link between the center and the various health agencies it is designed to serve. It goes without saying that successful operation of the medical department requires a well designed and streamlined plant, so that examinations, treatments, and so forth, can be done smoothly and quickly.

We shall turn now to the auxiliary activities which, for the sake of convenience, have been grouped under the heading, "Redirectional." These activities may be appropriately subdivided into two phases: the social work and the patient activities program. The social work is designed to assist the patient in making a satisfactory adjustment to his or her disease and to the period of treatment in the center. An attempt is also made either to formulate a plan for the disposition of the patient on dismissal or to steer the patient to an appropriate welfare agency which can handle the matter. In this way the liklihood of reinfection is reduced.

The second subdivision of the redirectional program was referred to as the patient activities program. The purpose of this subdivision is to provide the patient with a planned program of work, recreation, and education. Much of the routine work around the centers can be done by ambulatory patients. Also this provides a means by which the patients can earn a small amount of money to assist them in the transition back into community life.

In the way of education, the patients are given instruction in good housekeeping, personal hygiene, food preparation, and so forth. Most important of all, of course, is the education of the patients on the subject of the venereal diseases and how to avoid them.

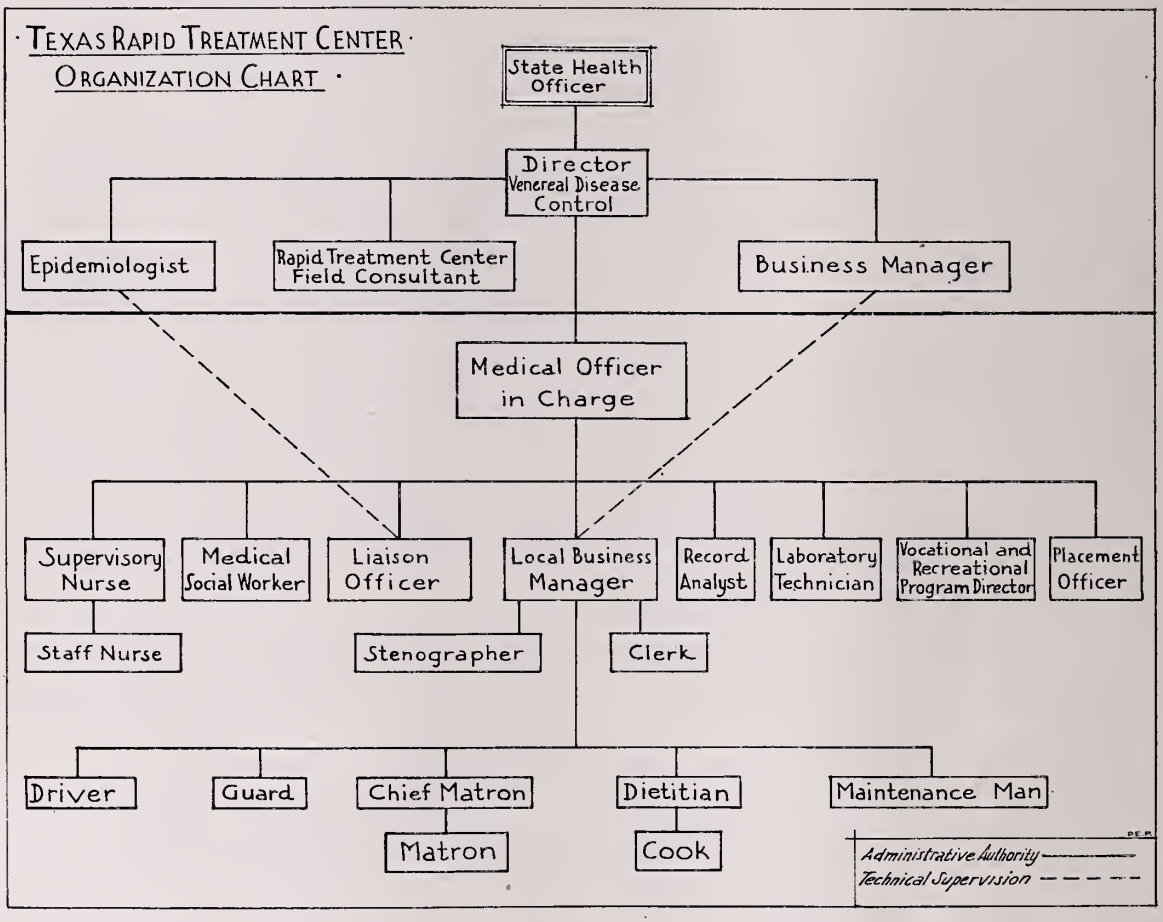
The third major phase of activity in the center is that of maintenance and operation. This department is responsible for the satisfactory housing and feeding of the patients,

Read before the Section on Public Health, State Medical Association of Texas, Austin, April 19, 1944.

for procuring equipment and supplies, for handling all financial machinery, for the transportation of patients, and for the general upkeep and operation of the center.

In summarizing the functions of the treatment center, it is seen fundamentally as a facility where the individual case of venereal disease can be given complete treatment in a short time and under continuous supervision. It thus carries out the same function as the out-patient venereal disease clinic, but with the significant difference that the patient in the center is under complete control during the entire course of treatment. This control assures first of all that the patient does not carry on activities which would continue to spread his or her disease while being treated or during treatment lapses, and second, it assures complete treatment—a goal which is all too often not reached in the out patient clinic. This brings us to the relationship of the treatment center to the total venereal disease program. It should be stressed here that the center by itself is not the whole answer to this problem; it is no panacea. But it is a valuable addition to the facilities which have been and are available for the control of the venereal diseases.

Venereal disease control depends on the same fundamental principles that govern the control of any communicable disease. First, communicable cases must be found. Second, when found, they must be controlled. Third, community conditions which facilitate the spread must be eliminated; a classical example of this, of course, is the house of prostitution. Fourth and last, but not least, a good program of public education is necessary. Each of these phases of activity contributes to the success of the whole program. No one phase alone would suffice.



It is of course apparent that the functions of the treatment center limit its place primarily to the second phase of activity, that is, the control of the known case when found. And by itself carrying out only this phase of the program, the center would be of little value. The treatment center, as its name implies, is designed to treat, not to find, patients. It is dependent for its patients on the case finding program of the health units which it serves. Its success and the degree to which it can contribute to the success of

the total program is therefore inseparably tied up with the satisfactory execution of all other phases of the program.

If we examine the control program as it has been and as it is being handled to a great extent at present, we find that one of its fundamental weaknesses lies in the inadequate control of communicable cases when found. This is a natural weakness of the out-patient clinic. It does not represent any lack of effort on the part of clinic directors or personnel. In spite of education, elaborate check-up systems, many letters, many phone calls, and many home visits, utilizing time, money, and valuable personnel it is nevertheless a fact that a large proportion of out-patient clinic cases receive irregular and, in the end, inadequate treatment. A perfect case finding program would therefore fail because of inadequate control of the cases when found. The particular value of the treatment center is now apparent. It offers to public health agencies and officials for the first time an adequate means of controlling these communicable cases.

It is absolutely imperative that rapid treatment methods be used to treat patients with venereal disease in a center. In the first place, domiciliary care is expensive; in the second place, when other means are available we would not be justified in removing persons from their community and home environment for long periods of time.

Rapid treatment methods require a complete and competent staff. The minimum staff which is necessary to handle rapid treatment at all can handle many as easily as a few patients. Where such special personnel, equipment, and so forth, are set up the overhead is so high that the facility must be operated at approximately capacity or the cost even with rapid methods becomes excessive. The rapid turnover of patients in the center creates a continuous demand for new cases, which in turn stimulates the case finding program in the area served by the center, and we see a very healthy condition in venereal disease control developing. The demands of the center and the needs of the case-finding program both stimulate each other and there is a natural tendency for the program to accelerate rather than to decelerate as is the result when a good case-finding program weighs down an out-patient clinic with large numbers of patients who must be followed and held for long periods of time.

It is apparent from the foregoing discussion of the treatment center in relation to the total program that the center must be operated in close relationship with existing health agencies which it not only serves but on which it is completely dependent. This relationship is both administrative and operational. Let us examine the administrative relationships first.

It is apparent when we consider the cost, the equipment, and the personnel necessary that it is not possible to have a center in each community, even if each community could supply sufficient cases for a center. In order to make treatment center facilities available to every agency in the State, it is necessary therefore that they be designed to handle the communicable disease for definite regions.

The health agency which is concerned with venereal disease on a regional basis is the State Health Department. The administrative direction of the treatment centers therefore falls logically on the Venereal Disease Control Division of the State Health Department.

Let us now examine the operational relationships. In the first place, the services of the treatment center must be coördinated with the needs of existing health agencies. The effort expended in a good case-finding program would be wasted if adequate means were not at hand for controlling the cases when found. It would be equally wasteful to set up elaborate expensively equipped centers for a mere trickle of patients. Adequate facilities must be provided and should be located so that the maximum number of patients can be reached with a minimum of transportation. In order to carry out its services smoothly and efficiently a number of uniform policies and procedures must be established and understood by all the coöperating health agencies. Of these, the following are illustrative:

The type of patient must be determined as to diagnosis, diagnostic criteria, age, sex, race, and economic status. For example, only definitely diagnosed cases of venereal disease in communicable or potentially communicable stages in indigents are acceptable in centers.

The method of referral must be uniform. Patients may either enter voluntarily or may be committed on quarantine. Where official forms are used, they must be of a standard type.

A satisfactory means of transporting the patients must be arranged. This may be either by the health agency finding the patient, a coöperating agency such as the sheriff's department, or by the treatment center. Before sending patients it is necessary to ascertain that dependent children or other family situations do not make removal of the patient impractical. Where such conditions exist, it may be impossible to send a patient to a center until satisfactory arrangements can be made for temporarily handling the

matter. Where satisfactory arrangements have not been made, it has been necessary in some instances to discharge patients before completion of treatment.

Many other technical details might be mentioned—the transportation of the patient back to his or her community, the medical follow-up, and so forth. It will suffice to say that the problem is of such size and such complexity that it can only be handled satisfactorily by careful planning and uniform procedures.

We have viewed very briefly the treatment center itself, its various departments and some of the details of its operation. We have attempted to set it into its proper niche in the total venereal disease program, and finally, we have attempted to show the relationship of the center in its operation to various other agencies which it not only serves but upon which it is completely dependent. Again let us stress that the rapid treatment center program is not an answer in itself and not an entity in itself. It simply represents an addition to the armamentarium of the public health official, which if used properly, can be of tremendous assistance in controlling the venereal disease problem with which we are faced.

ABSTRACT OF DISCUSSION

Dr. Chester N. Frazier, Galveston: This paper is an excellent exposition of the organization, function, and objectives of the rapid treatment center for venereal diseases. One aspect of the treatment of the patients sent to these centers will require efficient organization if it is to be successful, that is, the rehabilitation of the patient after treatment has been completed. Unless these people can be redirected in the course of their lives and made to engage in occupations which will not again expose them to the hazards of venereal infection, the problem of control will be an endless one. Special facilities for the social and economic study of each case will have to be devised and an organization perfected, the purpose of which will be to return the venereally infected person, especially the sexually promiscuous female, to a more secure position in society.

Inasmuch as my interests are those of medical education as well as the public health aspects of venereal disease, it is my hope that one of the rapid treatment centers may be placed so that it may function as a part of a university venereal disease clinic. With the proper coöperation between the staff of the hospital and that of the medical faculty, there would come an opportunity for the education of the undergraduate medical student in the objectives and in the technics of public health practice, not only in relation to the problem of control of venereal disease but also in relation to the general principles of the detention and control of diseases among the people of this State. The progress of the public health program of the State of Texas will depend upon the mental attitude of the young men and young women who are now being trained to be the physicians of the future. It is only through a better understanding of the essential purposes of the public health program by physicians in general that its objectives may be eventually realized.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, New York, 1945. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. James A. Ryan, Covington, Kentucky, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum. Dr. W. H. Browning, Shreveport, La., President; Dr. Alan Cazort, 702 Donaghey Building, Little Rock, Arkansas, Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, San Antonio, September, 1944. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio, President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Galveston, October. Dr. Q. B. Lee, Wichita Falls, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Titus Harris, Galveston, President; Miss Lucille Allen, Highland Park High School, Dallas, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association, Austin, Sept. 18-19. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Lubbock, October 10, 11, 1944. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society, San Angelo, Sept. 25. Dr. F. T. McIntire, San Angelo, President; Dr. Victor E. Schulze, San Angelo, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

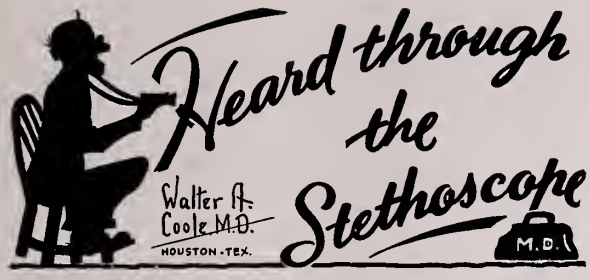
Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society, Bryan, July 11, 1944. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers, Abilene, Secretary.

Fourteenth District Society. Denison, December. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.



A page from the diary of the *family physician:* "Sweltering in the mid-summer heat and pursuing random thoughts on the subject of "*Socialized Medicine,*" "*Government-controlled Medicine,*" "*State Medicine,*" and the many vague and little understood terms we attach to the collective apprehension we experience concerning the future welfare of the private practice of Medicine. The loose manner in which these terms are kicked about in the doctors' dressing rooms, each session finally culminating in the usual sprightly open-house and semi-professional bull session, liberally interspersed with the latest off-brand anecdotes of the "farmer's daughter-traveling salesman" variety, leave little doubt but that the real fundamental problems confronting the post-war medical profession exist only in nebulous contemplation by most of us. It does not seem to have occurred to us that regardless of legislation, profound economical and social changes, world-wide geographical upheavals, there will always be a place for the private practice of medicine based upon the sympathetic and confidential relationship between patient and physician. This apparently arbitrary opinion is based upon the self-evident fact that *the American people simply will not subject the secrets of their personal life to the published records of an impersonal governmental medical bureau*—facts so necessary to understand the functional-organic maladjustment of the patient. Any ambitious but short-sighted political group which forgets this fact for one moment and arbitrarily forces medical legislation that attempts to eliminate the private practice of medicine will finally face an insurmountable dilemma that will endow the late Prohibition debacle and its back-wash of social evils with the native simplicity and relative unimportance of a bed-time childhood phantasy. There is not the slightest excuse for our government to attempt to destroy this indestructible part of American medicine which has been so conducive of so much good. One of the most inspiring epics of this tremendous war as well as the greatest morale builder both on the military and home front has been the part played by the vast numbers of private physicians with the armed services, who carried with them into the military profession knowledge and aptitude for application that could only have been acquired by the natural selection of medical personalities under private practice and developed in the white-heat of professional competition. No! The institution of the private practice of medicine, modified, of course, to meet the changing geophysical habits of peoples, is here to stay—either boot-legged, or legalized, or as a product of a blackmarket. The American people will have it no other way!

* * *

Sunburn Blues

I long for bed-clothes soft as fog
And cool as raindrops on the sea—
'Cause I went fishing on the bay
And sunburn just about has done for me.

Properly Defined

"An infant," stated the discouraged student nurse in the nursery, "is a gastro-intestinal tract with a loud mouth at one end and no sense of responsibility at the other!"

* * *

Fischerisms

"Make a diagnosis and get hanged for it. You can't sail a boat on your impressions of where the north lies."

"When you say a man has guts, you say he has a soul."

"God's interest in the human race is nowhere better evinced than in obstetrics."

"If you are physically sick, you can elicit the interest of a battery of physicians; but if you are mentally sick, you are lucky if the janitor comes around."

"Escape, inversion, pattern, are all pretty psychological patter—but what the Hell do they mean!"

"You don't start being a doctor until the medical school and the hospital have kicked you upon the street."

"Sure you can psychoanalyze, but, as Baehr used to say, why bother to sort garbage?"

—Martin H. Fischer as recorded by Howard Fabing.

* * *

Feminine Logic

Dr. F. J. L. Blasingame of *Wharton* says that obtaining efficient office help is really a rugged problem. Recently, he was fortunate to obtain the services of a personable young lady of the "Marie Wilson" type to whom he entrusted his filing cabinet. A very important letter disappeared shortly thereafter. Exasperated, the good doctor began at the A's and laboriously searched each filing envelope. Finally under "G Miscellaneous" he found the missing letter.

"Why on earth," he asked his new filing clerk, "did you file this letter under "G Miscellaneous?"

"Because," she explained as if surprised at his stupidity, "it began with 'Gentlemen'."

* * *

War Nerves

Despondencey crept in today—
It'll not occur tomorrow.
I'll fill it full of patients
And not leave room for sorrow.

* * *

Distracting

First Interne: "Why did they put that little blonde in a private room?"

Second Interne: "Because she is too cute for wards."

* * *

Before Sulfa and Penicillin

Dr. Joe Foster of *Houston* reports the case of the patient who tried to cure "water on the knee" by wearing pumps.

* * *

Experience Speaks

Two nurses watched the young lady enter the emergency room. Her hat was on one side and her clothes were crushed and torn.

"Looks as though she's been knocked down by a motorist," said one.

"Or picked up by one," said the other thoughtfully.

* * *

Retribution

Hitler says "Mein Kampf" so grim,
And facing every brutal task,
Will get him some place in the end—
But where, If I may ask!

* * *

Be seein' you at the medical meeting.

The following figures detail communicable disease reports for April and May, 1944, and May, 1943, for comparison:

	April 1944	May 1944	May 1943
Anthrax	0	0	2
Chickenpox	2277	1255	1487
Dengue	10	4	2
Diphtheria	130	112	89
Dysentery	1173	1450	979
Influenza	3730	1577	2380
Leprosy	0	1	0
Leth. Encephalitis	8	6	3
Malaria	415	472	887
Undulant	42	38	33
Measles	17,216	10.853	2554
Meningitis	87	69	72
Mumps	869	783	1235
Ophthalmia, Neo.	7	1	12
Pellagra	110	109	106
Pneumonia	1197	698	1065
Poliomyelitis	15	11	21
Rabies	0	0	1
Relapsing fever	1	3	7
Scarlet fever	654	327	244
Smallpox	4	1	13
Trachoma	18	20	8
Tuberculosis	2249	1367	769
Tularemia	3	5	6
Typhoid fever	25	37	26
Paratyphoid	1	1	3
Typhus	85	132	72
Whooping Cough	1192	966	2877

This month chickenpox, influenza, diphtheria, mumps, measles, meningitis, pneumonia, scarlet fever and whooping cough have shown expected seasonal decreases in incidence compared with the previous month.

Reports on typhus rose sharply this month. The 132 cases reported was 47 more cases than the previous month. There have been 388 cases reported so far this year, contrasted with 373 cases for the same period of time last year. However, the 132 cases for this month is well above the 72 cases reported in May last year.

The reported incidence of diarrhea and dysentery is well above the total for May 1943, with 1,450 cases reported this month. Most of these reports appear to concern mild gastro-intestinal upsets and apparently should be included in unspecified category rather than true bacillary or amebic dysentery. It is by no means clear that the great majority of these reports concern food-borne infection although many are in this category.

It is encouraging that malaria totals for the month are well under the totals for May 1943.

Beginning with the week ending June 10, 1944, in the Weekly Morbidity Report, all counties in Texas will be listed. Those counties which report as having no communicable diseases for the week will be listed as such; counties which fail to send their reports in will show no figures and must be considered delinquent in reporting for the week. Every effort should be made to mail reports on Saturday so that the totals can be compiled Monday. All communicable diseases should be reported through the health officer. Only by close cooperation and the reporting of all communicable diseases can one hope to marshal the proper forces to combat diseases on our home front. Unless communicable diseases are reported promptly, it may be difficult to prevent an epidemic. Neighboring counties or regional areas will quickly get a picture of all communicable diseases in their territory if communicable diseases are reported promptly.

Counties and cities which do not have legally authorized health officers should have one appointed immediately. The law requires that a health officer must qualify and file his oath of office with the State Department of Health. Aid for epidemiological investigations may be obtained through the State Department of Health.

The following figures detail communicable disease reports for May and June, 1944, in comparison with June, 1943:

	May 1944	June 1944	June 1943
Anthrax	0	0	0
Chickenpox	1255	558	477
Dengue	4	2	3
Diphtheria	112	96	87
Dysentery	1450	1937	1207
Influenza	1577	894	1238
Leprosy	1	0	0
Leth. Encephalitis	6	8	2
Malaria	427	770	913
Undulant	38	60	43
Measles	10,853	4373	972
Meningitis	69	46	41
Mumps	783	404	502
Ophthalmia, Neo.	1	5	4
Pellagra	109	137	85
Pneumonia	698	472	866
Poliomyelitis	11	11	84
Rabies	0	0	1
Relapsing fever	3	1	3
Scarlet fever	327	273	95
Smallpox	1	1	1
Trachoma	20	10	4
Tuberculosis	1367	1000	622
Tularemia	5	2	2
Typhoid fever	37	35	43
Paratyphoid	1	5	7
Typhus	132	156	83
Whooping Cough	966	941	2162

The measles epidemic of the previous month tapered off during the month of June with 6,480 cases less than the previous month. Associated with the drop in cases was chickenpox, diphtheria, influenza, meningitis, penumonia and whooping cough.

Each week shows from two to three times as many cases of dysentery as the seven year median. There were 1,937 cases reported this month while the month of May showed a total of 1,450 cases. In June, 1943, there were 1,207 cases reported. In the comment of the Weekly Morbidity Report of June 24, the local health officers were asked that every effort be made to determine the etiologic factor by laboratory and the other methods and that they should be carefully studied before they are reported as bacillary dysentery.

Malaria was above the median every week with the exception of one. There were 770 cases reported this month, while May showed a total of 472 cases. However, June, 1943, showed a total of 913 cases.

Typhus fever incidence continues to climb with 156 cases reported this month. With the exception of three weeks, typhus fever has been above the seven year median every week in 1944. There have been 544 cases reported for the first six months of 1944 while 1943 shows a total of 456 cases for the first six months.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during July:

Dr. M. W. Rogers, Rule—*Prostate, hypertrophy* (9 articles).

Dr. J. A. Garcia, Corpus Christi—*Vitiligo* (11 articles).
Dr. B. H. Johnson, Loraine *Vertigo* (20 articles).
Southwestern Medical School, Dallas—(1 journal).
Lieut. E. E. Miller, Beeville—*Neuritis, multiple* (22 articles).
Dr. H. D. Prichard, Wichita Falls—*Delirium, tremens* (13 articles).
Dr. G. M. Tulloch, Temple—(2 journals).
Dr. Elliott Mendenhall, Dallas—*Tuberculosis, Pulmonary, roentgenography* (8 articles).
Lieut. E. Bryce Alpern, Camp Wolters—*Purpura* (6 articles).
Dr. E. H. Sauvignet, Laredo—(1 journal).
Dr. Ernestine Smith, Amarillo—*Hemophilia* (10 articles).
Dr. J. Edward Johnson, Austin—*Boron Compounds, toxicity* (5 articles).
Dr. J. J. Hanna, Glen Rose—*Fatigue* (15 articles).
Dr. Robt. H. McCarty, Lubbock—*Aneurysm, arteriovenous* (7 articles).
Dr. Heinrich Lamm, La Feria—*Surgery, technic* (3 articles); *Uterus, excision* (6 articles).
Lieut. Frederick W. Steinberg, Camp Barkeley—*Hearing, physiology* (11 articles); *Heart, murmurs,* (17 articles).
Dr. J. R. Nicholson, San Antonio—*Aviation and Aviators, medicine* (20 articles).
Major Frank Cohen, Camp Wolters—(1 journal).
Capt. Roger J. Forastiere, Sheppard Field—*Anesthesia* (12 articles).
Dr. Charles J. Koerth, Kerrville—(1 book).

Accessions

Philadelphia, J. B. Lippincott Company—Rich: The Pathogenesis of Tuberculosis; Hotchkiss: Fertility in Men; Siegler: Fertility in Women; Rehberger: Quick Reference Book on Medicine and Surgery.
Springfield, Illinois, Charles C. Thomas—Osborne and Holmquest: Technic of Electrotherapy.
Chicago, American Medical Association—New and Nonofficial Remedies; Council on Pharmacy and Chemistry Reports.

Summary

Reprints Received, 1193	Local Users, 24
Journals Received, 168	Borrowers by Mail, 20
Items Consulted, 37	Packages Mailed, 23
Items Taken Out, 160	Items Mailed, 202
Total Items Consulted and Loaned, 422	

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during July:

Scott & White Clinic, Temple—"*The Treatment of Empyema*" (available for loan through courtesy of Mead Johnson & Company).

Lamar College, Beaumont—"*Pneumonia*" (available for loan through courtesy of Lederle Laboratories, Inc.); "*In Defense of a Nation*" (available for loan through courtesy of American Social Hygiene Association).

Bethania General Hospital Staff, Wichita Falls—"*Sister Kenny Method of Treatment of Poliomyelitis*"; "*Goiter Surgery*" (available for loan through courtesy of Mead Johnson & Company).

HOSPITALS NEEDING INTERNS AND RESIDENTS

Austin State Hospital, Austin. Capacity 2,810; admissions 613. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Lubbock General Hospital, Lubbock. Capacity 100; admissions 4,587. C. E. Hunt, Superintendent (2 residents).

Methodist Hospital, Houston. Capacity 125; admissions 4,250. Mrs. Josie M. Roberts, Superintendent (1 resident).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Miss Ellen Louise Brient, Superintendent (1 intern now; 1 October 1; 1 January 1, 1945).

Santa Rosa Hospital, San Antonio. Capacity 329; admissions 13,672. Sister Mary of Lourdes, Superintendent (1 resident).

Wichita General Hospital, Wichita Falls, capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (1 resident September 1).

NEWS

M. D. Anderson Hospital for Cancer Research Receives Endowment.—The Houston *Press* of July 1 announces that a $600,000 endowment was recently made to the University of Texas for cancer research, from the estate of the late Miss Rosalie B. Hite, last member of a pioneer Houston family. Miss Hite's bequest will finance work done at the M. D. Anderson Hospital for Cancer Research.

Additions to Southwestern Medical College Faculty were announced by Dr. Tinsley R. Harrison, dean, at the opening of the trimester, June 27, as follows: Dr. Arthur Grollman, former dean of the Bowman-Grey School of Medicine, Winston-Salem, North Carolina, professor of experimental medicine; Dr. William F. Guerriero, recently a member of the faculty of Louisiana State University School of Medicine, associate professor of obstetrics and gynecology; Dr. Francis Reichsmann, Research Fellow of the Dazian Foundation, New York City, appointed to do research work in the department of experimental medicine; Dr. Andres Goth, of the University of Chili, an associate professor of pharmacology. Dr. Goth was formerly a member of the medical staff of Vanderbilt University.

Dr. Donald R. Slaughter, dean of students, announced the appointment of Miss Ann Rucker as registrar. Miss Rucker was formerly in the registrar's office of Southern Methodist University.—*Dallas News.*

Alpha Omega Alpha Initiates Texas Graduates.—Dr. A. I. Folsom, professor of urology, Southwestern Medical School, Dallas, delivered an address to fourteen members of the senior class of the University of Texas School of Medicine, Galveston, who were initiates of the Alpha Chapter of the Alpha Omega Alpha honorary medical fraternity, at a banquet at the Buccaneer Hotel, June 2, 1944, informs the Galveston *News.* The initiation ceremony was conducted by Dr. W. B. Sharp, of the University of Texas School of Medicine, who presented the candidates with gold keys and certificates. Alpha Omega Alpha is a non-secret college medical honor society, membership to which is based entirely upon scholarship, moral qualifications being satisfactory. It was organized at the College of Medicine of the University of Illinois, Chicago, in 1902, and is the only order

of its kind in medical schools in this country. Its purpose is to encourage personal honesty and the spirit of medical research. Election to this society is not only recognition of accomplishment as a student, but also an insignia of promise and expectancy of leadership in some field of medicine after graduation. From each senior class, the University of Texas School of Medicine selects fourteen graduates to join the Alpha Chapter.

Baylor University News.—Dr. W. H. Moursund, dean, announced recently the addition of seven Houston physicians to the Baylor clinical faculty, and one to the pre-clinical faculty, advises the Houston *Chronicle*. Clinical faculty members announced were Dr. T. R. Hannon, associate professor, clinical surgery; Dr. F. O. McGehee, associate professor of orthopedic surgery; Dr. John E. Skagland and Dr. Zedella S. Brener, associate professors, clinical neuropsychiatry; Dr. Paul R. Stalnaker, associate professor, clinical urology; Dr. A. Louis Dippel, associate professor, obstetrics, and Dr. L. B. Zeis, instructor in clinical medicine. Dr. Carroll A. Handley, formerly of the University of South Dakota Medical School, has been appointed associate professor of physiology and pharmacology on the pre-clinical staff.

Miss Ella May Shackelford was recently added to the staff of the school as medical illustrator. Miss Shackelford is the daughter of the late Dr. A. L. Shackelford of Dallas. She is a graduate of the Maryland Art Institute, and was a student of the late Max Brodel, of Johns Hopkins University. Miss Shackelford has illustrated several medical books. She will do illustrations for research, and anatomical and pathological drawings.

Dr. James A. Greene, dean of the clinical faculty of Baylor University, recently announced the appointment of three new full-time teachers to the faculty, as follows: Dr. George W. Salmon, formerly a member of the faculty of Washington University, St. Louis; Dr. Don W. Chapman, of Iowa City, Iowa, and Dr. W. W. Coulter, Jr. Dr. Salmon was instructor in the department of pediatrics at Washington University. He is known for his work with Dr. Alexis Hartmann, and for his research on liver function in new-born infants. Dr. Chapman and Dr. Coulter will serve as instructors in the department of internal medicine.

University of Texas News.—Dr. Tinsley R. Harrison, dean of the Southwestern Medical College, Dallas, delivered the commencement address to members of the graduating class of the University of Texas School of Medicine and the John Sealy College of Nursing, Galveston, June 24. There were 96 graduates of the School of Medicine, of which number 50 were commissioned as medical officers in the U. S. Army, and 30 as medical officers in the U. S. Navy. This was the first graduating class under the specialized army training program to receive commissions on the completion of their work, advises the Galveston *News*.

Dr. Chauncey D. Leake, vice-president and dean of the Medical College, presided. Dr. D. Bailey Calvin, associate dean, presented the graduates in medicine to Dr. Homer P. Rainey, president of the University of Texas, and the members of the Board of Regents present, and Miss Marjorie Bartholf, director of the college of nursing, presented the 47 nursing graduates. Dr. Rainey conferred the degrees.

Capt. Lester L. Fankhouser, head of the specialized Army training program at the University of Texas School of Medicine, commissioned 50 graduates as temporary first lieutenants, and swore them into the United States Army.

Commander Rathborn of the Eighth Naval District presented commissions to the 30 naval officers and, in turn, swore them into the United States Navy, with the rank of lieutenant (junior grade).

Following the commencement exercises, the graduates were honored by the faculty with a reception at the Rebecca Sealy Nurses Residence. Regent representatives were special guests.

One hundred and one freshmen comprise the new class at the University of Texas School of Medicine, according to Dr. Calvin, associate dean and registrar. Of the 101 students, 31 are registered under the specialized army training program, 25 are enrolled in the navy specialized training program, and 45 are civilians, of which latter number 8 are women. The Army students came to the medical college on assignment from pre-medic army specialized training classes, or were transferred from base hospitals where they have been in service until the new classes matriculated. The Navy students came from V-12 training classes, or from base hospitals where they were held until the opening of the class. The new class of nurses at the John Sealy College of Nursing numbers approximately 40.

The Texas State Board of Medical Examiners will hold two examinations sessions the latter part of this year to accommodate graduates of Baylor University College of Medicine and the Southwestern Medical College. The dates of the sessions are November 15, 16 and 17, 1944, and December 19, 20 and 21, 1944. Both examinations sessions will be held at the Southwestern Medical College, Dallas.

The Board conducted examinations sessions at Galveston, June 26, 27 and 28. Ninety-eight members of the class were from the University of Texas School of Medicine, of which number 88 took the full examinations, six took the last half or senior subjects, and four the first half or junior subjects. There was one applicant from Southwestern Medical College who took the first half or junior subject examinations; one from the University of Tennessee who took the first half or junior subjects, and two who took the final or last half examinations. There was one applicant from Rochester University, New York; one from the University of Lausanne, Switzerland; one from the University of Vienna, Austria; one from the University of Mexico; one from the University of Illinois; two from the Kirksville College of Osteopathy, who took the full examinations and one who took the last half examinations; one from the Des Moines State College of Osteopathy, who took the full examinations, two from the Kansas City College of Osteopathy, who took the full examinations, and one who took the first half. The total number of applicants was 114. There were seven women in the class, six from the University of Texas, and one from the Kirksville College of Osteopathy and Surgery.

Of 101 candidates for licensure, 100 were successful in securing licenses and one failed. Of thirty-two applying to the Board for licensure by endorsement, none was rejected. Of these physicians, one was from the University College of Dublin, Ireland; three were Negroes, graduates of Meharry Medical College, and two were women physicians.

The Board met at Dallas July 30, and granted licenses on endorsement to eight applicants, all of whom were from regular schools of medicine.

The United States Chapter of the International College of Surgeons will hold its ninth annual assembly at the Benjamin Franklin Hotel, Philadelphia, October 3, 4 and 5. In an evening "Service Night" program the Assembly will be addressed by Vice-Admiral Ross T. McIntire, M. C., United States Navy; Major General George F. Lull, Deputy Surgeon General United States Army; Captain Joel J. White, M. C., United States Army; Dr. Charles M. Griffith, Medical Director, United States Veterans Administration, and other distinguished guests.

Dr. Morris Fishbein, of Chicago, editor of *The Journal of The American Medical Association*, will

be the principal speaker at the convocation exercises, when one of the largest classes in the history of the college will be accepted into fellowship and membership.

Dr. Rudolph Jaeger, formerly of Denver, Colorado, and now in charge of neurosurgery at Jefferson Hospital, Philadelphia, will be inducted into office as the new president of the United States Chapter.

Major activities planned in connection with the Assembly is a tour of Philadelphia hospitals, and attendance at clinics, under the direction of Dr. Leonard D. Frescoln of Philadelphia, which will be participated in by more than fifty prominent surgeons and others engaged in the work of rehabilitation and occupational therapy, who will present 20-minute papers during the morning and afternoon sessions.

There will be general surgery in one group, and alternating groups of gynecology and ear, nose and throat.

Interesting scientific exhibits will be presented, some of which are being shown for the first time. Among special features is a new exhibit on war activities by the American Red Cross. Motion pictures in black and white and in color will be shown on craniocerebral surgery, bone and joint surgery, plastic surgery, as well as new and original pictures on various medical entities. The medical profession is invited to attend the Assembly and its sessions.

The Chicago Institute for Hospital Administrators will be held at the International House at the University of Chicago, September 11 to 22, for the first time in its 12-year history under the sponsorship of the American College of Hospital Administrators, under the direction of Dr. Malcolm T. MacEachern, who has been its director since its inception. It was formerly sponsored by the American Hospital Association.

The Institute will provide for the first time an intensive series of lectures on the particular phases of hospital administration.

Each day throughout the course an authoritative expert will lecture on administrative methods of financial control in hospital operation. In addition to this specialized part of the institute, each morning program will include lectures by hospital leaders on such topics as the hospital in the community public health program, organization, basic principles, professional and non-professional services, standardization problems, administrative control of services to patients, the patient's evironment, medical staff and the specialized departments, nursing service and nursing education, and numerous other aspects of hospital management.

There will be lectures in the forenoons, seminars and field trips afternoons to selected Chicago hospitals for demonstrations, and evenings will be devoted to conferences on administrative and departmental problems facing hospitals.

Registration will be limited to 100 hospital administrators and assistant administrators. Applications for registration may be made through Dean Conley, Executive Secretary of the American College of Hospital Administrators, 18 East Division, Chicago.

The Biological Photographic Association will hold its fourteenth annual meeting September 7, 8 and 9 in Binghamton, New York. Papers will be presented by experts in the field of still and motion picture photography, photomicrography, etc. Round-table discussions will be the medium for exchange of ideas and methods. A salon of pictures made by leading biological photographers will be an important feature of the meeting, and representatives from firms specializing in precision equipment will demonstrate their products. The meeting at Binghamton will offer members and their guests an opportunity to visit the Ansco plant, home of the second largest manufacturers of photographic materials. The Ansco color process will be demonstrated.

The Biological Photographic Association is a non-profit organization for the study of photography as applied to medicine, dentistry, and the biological and natural sciences. Its members are scientific photographers, scientists who use photography in their work, and amateurs with a deep interest in biological and medical photography. The B. P. A. Journal, a volume of about 250 pages, is published quarterly and furnished free to members. Information regarding the Association or the program of the meeting, may be obtained by writing to the secretary of the Biological Photographic Association, University Office, McGee Hospital, Pittsburgh, Pa.

"The Doctor Fights."—Brig. General Fred Rankin, chief surgical consultant, U. S. Army, read an address prepared by Major General Norman T. Kirk, Surgeon General of the Army, in a natonwide broadcast June 20, on a CBS program, "The Doctor Fights," sponsored by Schenley Laboratories, Inc. General Rankin read the address for General Kirk, who was taken suddenly ill.

General Kirk's address stated that the American soldier today is the healthiest ever to take the field against the nation's enemies. He asserted that the rigid screening process by which both civilian and military physicians have weeded out the physically and emotionally unfit is largely responsible for this condition. He pointed out that, in previous wars, pneumonia has been responsible for many deaths, but during the winter of 1943, something under 1 per cent of pneumonia patients in the United States armed forces died of that disease. He advised that "meningitis, which 50 years ago had a death rate approximating 80 per cent and which 25 years ago had been lowered to a death rate of 40 per cent, had today in our armed forces a death rate approximating 5 per cent. . . . In one great military installation there have been reported 76 consecutive cases of meningitis without a single death." General Kirk stated that such figures could be applied to most of the common diseases that affect mankind, particularly under military conditions. The low death rate, according to General Kirk, is a tribute not only to physicians but "particularly also to the magnificent organization for medical research which is carried on during the war period." "This research," General Kirk stated, "has been reflected in the exceedingly low death rates from wounds of all men not killed outright in the use of such remarkable products as blood plasma, the sulfonamide drugs, penicillin and in the preventive measures for the control of measles, meningitis, typhus and many tropical diseases."

Personals

Captain Mayo Albert, graduate of the University of Texas School of Medicine, has been missing in action since invasion day, June 6, the War Department has informed his parents, Mr. and Mrs. W. F. Albert of Houston. His wife lives in Fort Worth.—*Houston Post.*

Captain Valin B. Woodward, Jr., son of Dr. and Mrs. Valin B. Woodward of Arlington, was recently awarded the DFC at an 8th Air Forces Liberator station in England, advises the Fort Worth *Star-Telegram.* Captain Woodward, a Liberator pilot, was cited for extraordinary achievement while serving as lead pilot of numerous bombing missions over Germany and enemy-occupied territory.

Colonel John J. O'Reilly, Army Medical Corps, State Medical Officer of Selective Service, has returned from Washington where he attended a conference of state medical officers from all States and Territories. The meeting was called for the discussion of the various problems concerning Selective Service and the armed forces. The Surgeons General

of the Army, Navy and U. S. Public Health Service were present and participated in the meeting.

Dr. A. I. Folsom, Dallas, professor of urology Southwestern Medical College, Dallas, was elected president-elect of the American Urological Association at the recent meeting of that organization in St. Louis.—*Dallas News.*

Dr. J. C. Davis, Rule, recently declined the appointment tendered him as a member of the Texas State Board of Health, by Governor Coke Stevenson, informs the Rochester *Reporter.*

Dr. W. W. Coulter, pathologist, Jefferson Davis Hospital, Houston, was appointed acting superintendent of that institution recently, succeeding Dr. Charles Hallson, who resigned to enter private practice in Houston. Dr. Coulter assumed his duties July 1. He retains his position as chief pathologist.—*Houston Chronicle.*

Dr. Ray Hanna, Sulphur Springs, was recently elected president of the Junior Chamber of Commerce of that city, advises the Sulphur Springs *News-Telegram.*

Dr. Branch Craige, *Dr. E. W. Rheinheimer* and *C. H. Mason*, El Paso, were reappointed members of the City-County Health Board, with approval of the Commissioners Court, for a period of two years each, informs the Rochester *Reporter.*

Dr. Robert T. Potter of Minneapolis, Minnesota, was recently placed in charge of the venereal disease clinic, San Antonio, announces Dr. Lewis C. Robbins, San Antonio health director.—*San Antonio Express.*

Mrs. John T. Ellis, daughter of Dr. and Mrs. George T. Caldwell, Dallas, was recently elected to Alpha Omega Alpha at Northwestern University School of Medicine, where she led her class of 150. Mrs. Ellis is a graduate of the University of Texas.—*Dallas News.*

Miss Rose Matthaei, Houston, medical technologist, assumed the presidency of the American Society of Medical Technologists July 1, to which office she was elected at a meeting of that organization recently in Chicago. Miss Matthaei is one of five technicians in the United States to serve on the advisory panel to the national board of registry for the American Society of Clinical Pathologists.—*Houston Post.*

Mrs. Frank Walker Leake, mother of Dr. Chauncey D. Leake of Galveston, died July 2 in the University of California Hospital, San Francisco, states the Galveston *Tribune.*

Mrs. Lorene Sneed, wife of Dr. A. G. Sneed of Denison, died June 26, in a Dallas hospital, advises the Dallas *News.*

Marriages

Dr. Roland L. White and Miss Bertha Virginia Fox, Galveston, were married in June, 1944.

Dr. James M. Buie and Miss Margaret Stell, Irene, were married in July, 1944.

Miss Eugenia Tate, daughter of Dr. and Mrs. Robert A. Tate of Kountze, and *Dr. Charles W. Gauntt* were married in July, 1944.

SOCIETY NEWS

Angelina County Society

June 10, 1944

(Reported by B. H. Denman, Secretary)

Fractures of the Elbow (lantern slides)—Joe Foster, Houston.
Gastric Ulcers—Robert Purdie, Houston.

Angelina County Medical Society met June 10, at the Angelina Hotel, Lufkin, with a good attendance.

The scientific program, as given above, was carried out. Both papers, presented by the guest speakers, were thoroughly discussed and enjoyed by all present.

June 19, 1944

Angelina County Medical Society held a special called meeting at the Angelina Hospital, Lufkin, June 19, with seven members present. Reading of the minutes of the previous meeting were dispensed with on the motion of R. W. Taylor.

Representatives of the Farm Security Administration discussed a program for financing medical and hospital care for their clients.

President T. A. Taylor appointed the following committee to confer with the officials of the Farm Security Administration with regard to hospitalization of clients of the Administration: B. H. Denman, Chairman, R. W. Taylor and Joe Burch.

R. W. Taylor was elected to fill the vacancy on the board of censors, caused by the absence of J. C. Clement, now serving in the armed services.

The Society voted to dispense with meetings until the regular meeting in September.

Brazoria County Society

June 29, 1944

(Reported by Brooks Stafford, Secretary)

Vaginal Repair of Cystocele and Rectocele—(Motion Picture).
The Application of Thick Split Skin Grafts—(Motion Picture).

Brazoria County Medical Society met June 29, at the community house in Freeport, with a majority of members of the society and their wives present. A barbecue was enjoyed, following which the ladies adjourned to hold a separate meeting to organize an Auxiliary to the Society.

During the business session, plans were made to obtain a resident bacteriologist for the area. A communication was addressed to the State Health Department over the signature of the Society and President George D. Reeves, calling attention to the hazards existing in the area as a result of numerous migratory workers, in connection with the war industry, who are living in trailers and similar accommodations. In order to insure protection against contaminated water, milk and food, it was recommended that the laboratory in the health center in Freeport be serviced by a competent bacteriologist who could promptly make analyses of water, milk and food, thus obviating the delay occasioned by sending sample specimens to Austin.

Following the business session, colored motion pictures were shown, as indicated by the titles given above.

The Society voted unanimously to suspend monthly meetings during July and August, the next meeting to be held the last Thursday in September, in Angleton.

Brown-Comanche-Mills-San Saba Counties Society

July 12, 1944

Brown-Comanche-Mills-San Saba Counties Medical Society held its June jubilee meeting at Lake Merrett near Goldthwaite, June 12. C. C. Bullard, vice president, presided in the absence of President Roy C. Hallum. The meeting was attended by fifty-seven members and guests, including members of the staff of the Station Hospital at Camp Bowie and their wives.

After the dinner, H. F. Connally, Waco, President of the State Medical Association, gave an address on the subject, "Socialized Medicine." Other speakers included R. D. Ball, Vice president and General Manager of the Santa Fe Railroad; Col. W. Weissinger, Chief of Staff at the Station Hospital, Camp Bowie; and Dr. R. E. Windham, Councilor of the Fourth District of the State Medical Association.

Dallas County Society

June 8, 1944

(Reported by W. W. Fowler, Secretary)

Insect Vectors in the Dallas Area and Their Control—Elmer P. Cheatum, Dallas.
Malaria (lantern slides)—George M. Jones, Dallas.

Post-War Medicine and Medical Problems—Colonel Alexander Marble, M. C., Harmon General Hospital, Longview.

Dallas County Medical Society met June 8, in the Medical Arts Auditorium, with David W. Carter, president, presiding. A scientific program consisting of a symposium on "War Medicine" was presented as given above.

George M. Jones, exhibited numerous lantern slides illustrating methods used in preventing malaria, such as screening, mosquito nets, and use of insecticides—pyrethrum and kerosene; drainage; larvicidal measures, such as oiling and the use of paris green; personal prophylaxis, such as the use of proper clothing and the oil of citronella; chemoprophylaxis; the use of gambusia, and other fish; and destruction of mosquitos through the use of airplanes and boats.

Charts were exhibited showing the results obtained in eliminating malaria after initiating the proper control procedures.

The symposium on "War Medicine" was discussed by Lawrence B. Sheldon, B. C. Andrews and J. M. Potts.

Oscar Perdue Sanders was elected to membership on application.

June 22, 1944

The Serodiagnosis of Syphilis—John L. Goforth, Dallas.
Treatment of Central Nervous System Syphilis—F. F. Harrington, Dallas.
Newer Developments in Syphilis Therapy—Lee J. Alexander, Dallas.

Dallas County Medical Society met June 22, in the Medical Arts Auditorium, Dallas, with David W. Carter, Jr., President, presiding. George W. Howard acted as secretary *pro tem.* The scientific program as given above was carried out.

Lee J. Alexander, in discussing newer developments in syphilis therapy, called attention to the value of quantitative testing of the serum of syphilitic patients. A historical review and evaluation was given of the results of various techniques and modifications of intensive arsenotherapy for early syphilis. The value of pencillin in early and late syphilis was discussed.

The paper of Lee J. Alexander was discussed by C. F. Brown and Gus Schreiber, Jr.

Hamer C. Irwin, Allan C. Evans, and William Fred Guerriero were elected to membership upon application.

Gray-Wheeler Counties Society

June 15, 1944

Common Diseases of the External Ear—C. E. High, Pampa.
Epipharynx—Fred J. Crumley, Amarillo.

Gray-Wheeler County Medical Society met June 15, at the Schneider Hotel, Pampa. Following a dutch lunch, the scientific program as given above was carried out.

Jefferson County Society

June 12, 1944

The Use of Vitamin K. in Obstetrics and New Born Infants—W. D. Brown, W. H. Brandau and Ellen D. Furey, Beaumont.

Jefferson County Medical Society met June 12, at the Hotel Dieu, Beaumont, with I. T. Young, president, presiding.

The scientific program as given above was carred out. The discussion of Drs. Brown, Brandau and Furey included the presentation of a case of hemorhage in a new born infant, the autopsy findings in this case, and a review of the literature on the use of vitamin K. The presentation was discussed by R. L. McLaughlin, I. T. Young, C. H. Todd, Joe A. Bybee, T. C. Walker, Wm. G. Wallace and L. C. Powell.

A report was given by the Legislative and Public Health Committee, composed of R. R. Orrill, chairman, J. M. White and L. C. Powell, after their study of a proposed set-up for a full time county health unit, which subject had been referred to the committee for consideration and recommendations.

E. S. Osborne, Jr., United States Public Health Service director of the Jefferson County Health unit, read a telegram from Dr. George W. Cox, State Health Officer, pertaining to the matter. Or. Osborne asserted that the State Health Department does not propose to take away from the local health board of the community control of the county health unit, and that if the local health unit is not continued, and it is desired later that such unit again be placed in operation, the State Health Department will lend a sympathetic ear to such proposal.

Dr. Osborne pointed out that the State Board of Health is composed of members of county medical societies, and that the State Health Officer is directed by the Board of Health with regard to policy, and is elected by the Board. The report of the legislative and public health committee was discussed by J. C. Crager, L. R. Byrd, Stuart T. Weir, J. R. Bevil, L. C. Powell, Chas. H. Todd, Ellen D. Furey, Taylor C. Walker, R. Ray Orrill, W. D. Brown and E. S. Osborne. An editorial entitled "County Health Unit" from the Beaumont *Journal* was read.

July 10, 1944

Chest Tumor; Tuberculosis of the Vertebrae; Case Report—H. B. Eisenstadt, Port Arthur.
External Skeletal Fixation of Fractures; Case Report—E. C. McRee.

Jefferson County Medical Society met July 10, at St. Mary's Hospital, Port Arthur, with I. T. Young, president, presiding. The scientific program as mentioned above was carried out.

The first case reported by H. B. Eisenstadt was a solid tumor of the chest, which, at operation, was found to be a dermoid cyst arising from the mediastinum.

The second case reported by Dr. Eisenstadt was that of tuberculosis of the vertebral column with draining sinus in the left thigh.

The preliminary report presented by E. C. McRee on three cases of external skeletal fixation of fractures was discussed by John B. Woodall, L. R. Byrd, James Makins, Chas. H. Todd, Jr., and Max J. Knight.

J. C. Crager opened the discussion on the county health unit and stated that the bulletin, "Full-time County Health Unit," which had been studied by the Public Health and Legislative Committee was a group of generalities used for the guidance of the local County Health Unit in working out its own program. Dr. Crager stated that the State Health Department had certain powers set up by law and the county society could not add to or subtract from these powers. He further asserted that the program of public health as set up in Beaumont could not be considered a plan of socialized medicine, because the Beaumont ordinances state that there must be local control. Dr. Crager insisted that consideration of this matter should be limited to public health standards, and that the state is interested only in a coordinated public health program. He then presented the following resolution:

"The Jefferson County Medical Society has always favored and still favors a program that provides both efficient public health control and adequate medical care of the medical indigent.

"The Jefferson County Medical Society approves the principle of coordinated county public health program administered by a county board of health through a qualified Medical Director chosen by said county board of health. This board of health is to be selected in a manner to be determined by the Jefferson County Commissioners Court.

"Details under this plan must necessarily be worked out in each community according to the needs of the community and according to the existing laws applicable to such a program in each community."

C. M. White stated that the resolution presented by Dr. Crager was not the subject for consideration. He asserted that the report of the committee on public health and legislation was before the society and moved that the report be adopted, which motion was seconded by Charles H. Todd, Jr.

J. C. Crager moved that the motion of C. M. White be tabled, which motion was seconded by E. C. McRee, and carried.

L. C. Powell moved that the resolution presented by J. C. Crager be adopted, which motion was seconded by W. A. Smith. Following a discussion by Wm. A. Smith, Charles H. Todd, Jr. moved to amend the resolution of J. C. Crager with reference to composition of the county board of health. Following discussion, the amendment was withdrawn. The subject was further discussed by E. C. Ferguson, after which the resolution presented by J. C. Crager was adopted unanimously.

Twelfth District Society

July 11, 1944

(Reported by Robert J. Hanks, Secretary)

The Twelfth District Medical Society met July 11, at Bryan, with headquarters at the American Legion Hall. The following scientific program was carried out:

The Cause and Treatment of Rheumatism—J. W. Torbett, Sr., Marlin.
Treatment of Common Skin Diseases—Paul Herschell Power, Waco.
Anti-coagulants as Used in Thrombosis—S. C. Richardson, Bryan.
Host Response to Re-inoculation of B. Tuberculosis—Alvis E. Greer, Houston.
The Clinical Use of Penicillin—Lt. Colonel Richard B. Grant, M. C., Brooke General Hospital, San Antonio.
Spinal Anesthesia: A Report of 1200 Cases—L. W. Pollok, Temple.
Why the Flight Surgeon—Colonel Harry Andrews, M. C., Bryan Army Air Field, Bryan.

THE CAUSE AND TREATMENT OF RHEUMATISM (J. W. Torbett, Sr.).—It is axiomatic that the cause of rheumatism must be determined before it can be scientifically treated. The majority of cases are caused by the by-products of bacteria located in the body, in foci of infection. These bacteria produce an allergic state, and successful treatment depends upon desensitization of the patient to the allergen. Skin tests should be made in such cases for Malta fever, tuberculosis, streptococcus, staphylococcus, colon bacilli and other types of infection. Eighteen per cent of patients suffering from rheumatism have had their tonsils removed, and 50 per cent have had their teeth extracted, with no relief of symptoms. The colon bacillus causes 30 per cent of cases of rheumatism, and the streptococcus, 20 per cent. Vaccines against these organisms should be given intradermally, and the dose should be gradually increased, as is done in the treatment of allergic diseases. Gold therapy and massive doses of Vitamin D are valuable only in cases of rheumatoid arthritis. Chrysotherapy will help about 63 per cent, and vitamin D about 50 per cent, of these cases. The paper was discussed by Robert J. Hanks, Waco, and S. C. Richardson, Bryan.

TREATMENT OF COMMON SKIN DISEASES (Paul Hershell Power).—The various stages of skin diseases from beginning erythema to pustulation and thickening were discussed. Strong emphasis was placed upon the desirability of beginning with weak strengths of medication, and increasing as the skin of the patient will permit, instead of using strong medication at first. Skin diseases are uniformly made worse by the injudicious use of strong medication. The paper was discussed by J. W. Torbett, Sr.

ANTI-COAGULANTS AS USED IN THROMBOSIS (S. C. Richardson).—This condition is more common than ordinarily thought. The two drugs used for its treatment are heparin and dicumarol. Heparin is made from liver, and dicumarol from sweet clover. The heparin is given intravenously and is rapid in action. Dicumarol, on the other hand, is given orally, and has a more lasting effect. In using these agents, the clotting time of the blood must be watched very carefully, for if too much is given, the patient may develop severe purpura, and bleed to death in a short time. Before the drugs are given, a donor should be found and kept ready for immediate transfusion if necessary. A case was reported of a patient with cardiorenal disease, with blood pressure of 230/190, who developed thrombosis in both popliteal spaces. The condition would not allow amputation, although the left leg was showing beginning gangrene. Heparin and dicumarol were given, and both legs were saved. There was some sloughing of the skin and muscles of the left leg, but the circulation is good, and with the aid of skin grafting, the patient will make a complete recovery.

Lt. J. L. Hart, in discussing the paper, stated that massive doses of vitamin K can be used instead of whole blood transfusion, in cases in which bleeding occurs.

Lt. Colonel Richard B. Grant, M. C., Brooke General Hospital, San Antonio, said the Army advocated early ambulation as a means of preventing thrombosis. When thrombosis does occur, sympathetic block is used with tight bandages on the affected extremity. The Army does not use any anticoagulants because of the danger of hemorrhage.

HOST RESPONSE TO RE-INOCULATION OF B. TUBERCULOSIS (Alvis E. Greer).—The tuberculosis bacillus causes two types of infections in humans. The first infection produces an allergic state in the human to tuberculin, and that is the essential difference between the two infections. The allergic state is the reason why the tissue response of the lungs is so different in the second infection, from that in the first. The first infection is of a milder type, with less destruction of tissue, while the second infection is much more severe and accompanied by destruction of tissue, because of the allergic reaction. Koch advocated the use of tuberculin to desensitize the body, but because of its indiscriminate use, this method fell into disrepute. The purpose of having the tuberculous patient to rest is to attempt to give the body time to change from a state of non-immunity and allergy to immunity and non-allergy, which cures the patient.

Robert J. Hanks, in discussing the paper of Dr. Greer, stated that allergy to tuberculin is slowly built up in the body while immunity is rapidly acquired. On the other hand, allergy is a lasting condition, while immunity is short-lived, and disappears shortly after the patient is well, so that the patient is not protected against reinfection in the future.

THE CLINICAL USE OF PENICILLIN (Richard B. Grant).—The history of penicillin was reviewed. Colonel Grant pointed out that penicillin is not a miracle drug, and it should not be used indiscriminately for every type of infection. It is especially efficacious in infections caused by the streptococcus, staphylococcus, pneumococcus, actinomycosis and gas bacillus. It is of no value in infections caused by acid-fast organisms. A mystery in connection with penicillin is why it will produce results at times when the causative organism of disease is not susceptible to penicillin by laboratory tests. It is much more efficacious in acute than in chronic infections, and also gives better results when the blood supply is plentiful. Thrombosis can and does occur following intravenous use. The only indication for giving penicillin intravenously is in cases of overwhelming infection or bacteremia. The drug is too slowly absorbed when given subcutaneously. Intramuscular injection is the method of choice. The usual dose prescribed should be, for the streptococcus, 80,000 to 120,000 units per 24 hours; for the pneumococcus, 80,000 to 120,000 units per 24 hours; for the

gonococcus, 80,000 to 120,000 units per 24 hours; for the staphylococcus 200,000 units per 24 hours. The staphylococcus is more likely to become resistant to pencillin than the other bacteria named. The sedimentation rate is important in determining the response to penicillin. Lantern slides were exhibited showing the response of war wounds to penicillin therapy. The paper was discussed by J. E. Marsh, Bryan; Alvis E. Greer, Houston; Paul Hershell Power, Waco; S. C. Richardson, Bryan, and L. W. Pollok, Temple.

SPINAL ANESTHESIA: A Report of 1,200 Cases (L. W. Pollok).—This method of anesthesia is effective and has less undesirable effects than some of the other methods. The problem is controlling the extent of the anesthesia. No deaths occurred in the series of 1,200 cases in which it was used. Children are poor subjects for spinal anesthesia. The spinal anesthesia failed in 76 of the 1,200 cases, or in 6 per cent. Partial failure occurred in 92 cases, or 7 per cent. Spinocain was the drug of choice. The blood pressure should be taken every five minutes during operations in which spinal anesthesia is used. The paper was discussed by L. O. Wilkerson, Bryan.

WHY THE FLIGHT SURGEON (Harry Andrews)—The history of the flight surgeon from the beginning of this specialty to the present was given. The flight surgeon must know the effect of altitude and of other aviation factors on the body. Injured persons can be moved by air transportation without danger, with the exception of certain types of wounds, such as open wounds of the chest. All night fighters use oxygen immediately that they leave the ground. Most flyers do not use oxygen until they reach 10,000 to 12,000 feet altitude.

The paper was discussed by L. O. Wilkerson.

At noon, the Brazos-Robertson Counties Medical Society were hosts at a luncheon served those attending by members of the Woman's Auxiliary to the Society including ladies attending the Twelfth District Auxiliary meeting. On this occasion, S. C. Richardson, Bryan, presided as toastmaster, and introduced distinguished guests, including Dr. N. D. Buie of Marlin, past president of the State Medical Association; Dr. G. V. Brindley, Temple, Councilor of the Twelfth District, and Mrs. S. E. Thompson, Kerrville, President of the Woman's Auxiliary to the State Medical Association.

General James A. Bethea, Commanding Officer of McCloskey General Hospital, Temple, through Dr. G. V. Brindley, extended an invitation to the Society to meet at the McCloskey General Hospital January 9, 1945. The invitation was accepted unanimously.

H. F. Connally, President of the State Medical Association, was the principal speaker after the luncheon. Dr. Connally discussed socialized medicine. He stated that certain changes in the delivery of medical care are inevitable, but it is important that the medical profession direct and guide such changes so that they will result in the best type of care for the public. He advised that an insurance plan is being developed which will be presented to the medical profession at a later date. Dr. Connally also explained why it was necessary to raise the State Association dues from $9.00 to $20.00.

The committee on arrangements for the meeting was composed of Drs. J. Sidney Perry, L. O. Wilkerson and J. E. Marsh.

Fourteenth District Society

June 20, 1944

The Fourteenth, North Texas, District Medical Society held its 127th semi-annual meeting in Greenville, with G. E. Brereton, Dallas, president, presiding. The following scientific program was carried out:

Traumatic Surgery—Ira Thomas, Gainesville.
(Discussed by Joe Becton, Greenville.)

Treatment of Congestive Heart Failure—C. T. Kennedy, Greenville. (Discussed by George Carlisle, Dallas.)

Low Back Pain—Paul Williams, Dallas.
(Discussed by A. I. Folsom, Dallas.)

Feeding the Child—P. E. Luecke, Dallas.
(Discussed by John E. Dunlap, Dallas.)

Shock, Its Management—Coble Strother, Sherman.
(Discussed by John V. Goode, Dallas.)

Psychosomatic Medicine—Lt. Commander J. M. Nagle, San Francisco, California. (Discussed by A. J. Schwenkenberg, Dallas.)

Management of Suppurative Otitis Media—J. W. Ward, Greenville. (Discussed by Lyle Sellers, Dallas.)

Malaria—George M. Jones, Dallas.
(Discussed by Doak Blassingame, Denison.)

The Society will hold its next meeting in Denison, in December.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Powers, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

The Twelfth District Auxiliary met July 11, 1944, in the American Legion Hall, Bryan. Mrs. S. C. Richardson, of Bryan, a former president, presided in the absence of Mrs. E. B. Powell, of Waco, President.

Mrs. L. O. Wilkerson, Bryan, gave the invocation.

Greetings from Bryan members of the auxiliary were extended by Mrs. W. B. Cline, Bryan.

Mrs. S. E. Thompson, Kerrville, State President, was introduced and gave an interesting talk on the subject, "Obligations of Doctors' Wives to Civic Problems."

Members of the Auxiliary were guests, with members of the Twelfth District Medical Society, at a luncheon, compliments of the Brazos-Robertson Counties Medical Society and Auxiliary.

At the conclusion of the meeting, a free-will offering realized $5.00 for the Memorial Fund of the State Auxiliary.

Members of the Auxiliary were guests at a formal tea at The Oaks, as the final feature of the day's program.

BOOK NOTES

[1]Synopsis of Neuropsychiatry. By Lowell S. Selling, Sc. M., M. D., Ph. D., Dr. P. H. Director, Psychopathic Clinic, Recorder's Court, Detroit, Michigan; Associate Attending Neuropsychiatrist, Eloise Hospital; Adjunct Attending Neuropyschiatrist, Harper Hospital. Fabrikoid, 500 pages. Price $5.00. St. Louis, The C. V. Mosby Company, 1944.

The purpose of this volume is to present, in outline form, an organized review of neuropsychiatry. The author states, "To enable the student to get a background of neuropsychiatry without blocking his memory with detail, to serve as a quick guide for diagnosis and treatment, and to provide a background for intense review are the intentions of this synopsis of neuropsychiatry."

The first part is devoted to a discussion of neuroanatomy and neurophysiology. The author has some difficulty in presenting in concise form those phases of the subject which are still problems of research and controversy. In spite of these difficulties in

[1]Reviewed by Jack R. Ewalt, M. D., Galveston, Texas.

organization, the student will be able to follow the outline without too much difficulty. The pathology and neurological disorders of the various anatomic divisions of the nervous system are discussed in the chapters devoted to the normal anatomy and physiology. This manner of presentation results in some repetition in the case of those syndromes which are not confined to a single anatomic division. The "muscle syndromes" are discussed in a separate chapter. For some reason the author describes myasthenia gravis in this section, stating that "the lesion is of muscular and not of nervous origin." No mention is made of the disturbed physiology at the motor end plate, yet he recommends prostigmine both for diagnosis and treatment. His recommendation of x-ray for treatment of the enlarged thymus found in some cases, and his failure to recommend surgery for these patients, is not in keeping with the trend of recent experience as recorded in the literature.

Part II discusses the "Mental Disorders." The first chapter is devoted to a discussion of "The Principles of Abnormal Psychology," "Mental Mechanisms," "Psychoanalytic Concepts," and "Individual Psychological Mechanisms." In his attempt to be brief the author makes statements which may be true in some instances and not true in others. This will result in considerable confusion and misinformation for the beginner, although the well informed student will be able to follow the author's concepts without difficulty. The reviewer believes the organization of the balance of this section will result in confusion rather than organization of the student's knowledge of psychiatry. One chapter discusses "Symptomatology of Mental Disease," another "Psychiatric Syndromes," which prove to be groups of mental symptoms, and this is followed by chapters on "Brain Trauma," "Neurosyphilis," "Alcoholism" and "Drug Addiction." He then discusses "The Psychoses." The reviewer found this manner of organization confusing, with much repetition and at times minor contradiction. The chapter on "The Parapsychoses" seems to be an attempt to raise the clinical indecision to the respectability of diagnostic classification. The author's use of the patient's attempts to rationalize his symptoms, as a distinguishing feature from a psychosis, is not valid. His statement that persons suffering from "parapsychoses" "make a fairly good military adjustment, but are poor marksmen and constitute a permanent 'awkward squad'," seems ambiguous. There is a special chapter on "Malingering." The author's concept of malingering as "like the psychoneuroses, malingering is an evasion of reality and an attempt to satisfy certain extrasocial desires, wishes, and to resolve conflicts by improper but socially approved means," has much to recommend it.

The reviewer agrees with the author, that a concise orienting presentation of the fundamental concepts of neuropsychiatry would be a valuable addition to the literature. That this is a task of very considerable proportions is also recognized. The present volume contains much helpful information, but the organization is so confusing, and it contains so many contradictory, loose, and approximate statements that it cannot be recommended for the student or general practitioner. The specialist, reviewing for boards, who has sufficient background to follow the author's presentation and to ignore the misstatements, will find the volume useful. It is to be hoped that future editions will eliminate many of the above defects.

[2]Neurosurgery and Thoracic Surgery. Prepared and Edited by the Subcommittees of Neurosurgery and Thoracic Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. 310 pages, illustrated. Price, $2.50. Philadelphia and London, W. B. Saunders Company, 1943.

During the war a specialist may become a generalist and a generalist may be called upon to do the work of a specialist. This fact has been recognized by the medical departments of the Army and Navy, and they have had this manual published under the auspices of the National Research Council. It is a small book of 300 pages, the first part of which was written by a group of neurosurgeons under the chairman of Howard C. Naffzigar. The second part was written under the direction of Everett A. Graham, who was assisted by several experienced thoracic surgeons. The book is issued to meet the needs of the medical officers who may be faced with problems which fall into either one of these two important branches of surgery. These problems may present themselves at a time when the surgeon is remotely situated from a consultant, hospitals or other modern facilities. This book would, indeed, be a boon to an officer placed in such a position. Basically sound fundamentals of every phase of both neurosurgery and thoracic surgery are briefly but clearly and adequately brought out.

The methods of treatment could scarcely raise professional controversy, and they are not made impracticable by advocacy of the use of complicated equipment which is rarely available to a medical officer on the battle field, on a ship or on some remote outpost. It would seem, however, that the book could have been improved by the use of a greater number of illustrations than have been used. While this volume as a whole is excellent, special praise should be given to the chapter on wounds of the thorax, a phase of emergency surgery which is not well understood by most surgeons. In fact, this book deals so well with every day surgical problems it should not be considered as being useful to the military surgeon alone. It would, likewise, be of benefit to the general surgeon in civil practice.

New and Nonofficial Remedies, 1944, containing descriptions of the articles which stand accepted by the Council of Pharmacy and Chemistry of the American Medical Association on January 1, 1944. Cloth. Price, postpaid, $1.50. Pp. 778. Chicago: American Medical Association, 1944.

The current volume of New and Nonofficial Remedies reflects two important and forward looking decisions of the Council, namely, to use the metric system exclusively in all its publications, and to consider for acceptance contraceptive preparations offered for use as prescribed by physicians. These decisions in turn reflect the vigorous and progressive leadership of the Council in the service of Medicine.

The chapter on contraceptives is quite comprehensive; with the acceptance of more preparations, it will undoubtedly assume a large place in New and Nonofficial Remedies. The Council has thus far accepted some contraceptive jellies and creams, contraceptive diaphragms, diaphragm inserts, syringe applicators, and fitting rings. It is understood that a number of additional preparations have been submitted for Council consideration since the book went to press. This chapter represents a courageous and long-needed innovation.

Some of the new preparations that appear in this volume are: Succinylsulfathiazole, a new sulfonamide, a proprietary brand being "Sulfasuxidine"; Diodrast Concentrated Solution, a preparation of the already accepted Diodrast, for use in a special diagnostic procedure for visualization of the circulatory system and also cholangiography; a preparation of Sodium Benzoate for use as a liver function test; Mersalyl and Theophylline, accepted under the name Salyrgan-Theophylline Tablets, proposed as

[2]Reviewed by J. W. Nixon, M. D., San Antonio, Texas.

an adjunct to intravenous injection of the already accepted drug; Zinc Insulin Crystals and Zinc Insulin Injection Crystalline; Tetanus Toxoid; and Concentrated Oleovitamin A and D, a dosage of the pharmacopoeial preparation.

A glance at the preface shows that certain general articles have been revised to bring them up to date. More or less important revisions have been made of the following chapters: Barbituric Acid Derivatives, Estrogenic Substances; Parathyroid; Ovaries; Sulfonamide Compounds; Vitamins, especially the sections, Vitamin B Complex and Vitamin D. In this connection it is worth noting that each chapter in the book is reviewed annually, or more often if indicated, by the responsible referee for such revision.

This volume is of paramount interest to all those concerned with rational and modern drug therapy.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1943. Cloth. Price, postpaid, $1.00. Pp. 150. Chicago: American Medical Association, 1944.

The present volume of reprints contains only eight reports on rejected articles; it is interesting to note that objections to these are on a much higher plane than those it was necessary to urge against the flagrantly quackish preparations of earlier days.

Perhaps the most noteworthy of the nineteen general and "status" reports in this volume is the one declaring the Council's intention of using henceforth only the metric or centimeter-gram-second system in its publications. The report itself gives some interesting and readable history on the subject of weights and measures. Of most timely interest to the general physician as well as the endocrine specialist is the report on nomenclature of endocrine preparations. The report gives a currently quite complete list of the available commercial preparations, including those not accepted by the Council as well as those which stand accepted. Another report in the field of endocrinology is that recognizing the use of estrogens in the treatment of prostatic carcinoma.

Attention should be called to at least two of the reports concerned with vitamin preparations, namely, the status report giving the Council's decision that the evidence does not yet warrant the acceptance of cod liver oil preparations for external use, and the report announcing the Council's recognition of the use of massive doses of vitamin D in arthritis, and in this volume includes a current comment from *The Journal* titled "Hope (false) for the Victims of Arthritis," which reemphasizes this objection.

The status report on xanthine compounds gives a much needed delimitation of the therapeutic claims that may be recognized for aminophylline and its related xanthine derivatives. Of similar interest is the report on the local use of sulfonamides in dermatology, and in the same category may be mentioned the report on agents for the treatment of Trichomonas Vaginitis, which points out that the present aim should not be for new medicaments in this field but for further information, especially concerning failures with those that have been used. In another status report the Council sets forth its conclusion that present evidence does not justify claims for advantage of oral use of sodium sulfonamides over the free drug.

In line with its decision to consider for acceptance various contraceptive preparations, the Council published a status report on conception control, which is concluded in this volume. The report comprises a series of concise statements on the various preparations and methods of control, prepared by Dr. Robert Latou Dickinson, together with a statement of criteria by which the Council will consider the acceptability of contraceptive jellies, creams, and syringe applicators and nozzles, diaphragms and caps.

It cannot be too often said that this volume, as well as the other publications of the Council, remains of paramount interest to all who are concerned with rational use of therapeutic agents.

DEATHS

Dr. **W. F. Sayle** of Commerce, Texas, died March 2, 1944, in Alexandria, Louisiana, of injuries received in an automobile accident.

Dr. Sayle was born December 17, 1904, in Commerce, Texas, the son of Mr. and Mrs. George E. Sayle. His academic education was received in the University of Texas, Austin; Tulane University, New Orleans, and the University of Illinois, from which last-named institution he received the B. S. degree in 1928. His medical education was obtained in the University of Illinois College of Medicine, from which he was graduated in 1932. While studying medicine, he also worked as a flagman in the Illinois Central System suburban service in Chicago. After graduation he served an internship at the Illinois Research Hospital, following which he served a residency in radiology at the Charity Hospital, New Orleans. He then practiced in New Orleans from 1934 to 1936, during which time he served as assistant visiting physician to Charity Hospital for six months and for two years as assistant visiting surgeon in gynecology at Charity Hospital. For one year he served as a member of the teaching staff of gynecology of the Louisiana State University and was assistant for two years to Dr. Upton Giles of New Orleans in internal medicine. Dr. Sayle then moved to Commerce, Texas, where he had been in active practice until his untimely death.

Dr. Sayle was a member of the Hunt-Rockwall-Rains Counties Medical Society, State Medical Association and American Medical Association, in good standing during his professional career in this state. He took an active interest in the civic affairs of Commerce and had served as a member of the local school board. He was a member of the Methodist Church, and a Mason. His untimely tragic death was sincerely mourned by his community, where he will be greatly missed.

Dr. Sayle was married January 7, 1927, to Miss Dorothy Patterson of Chicago. He is survived by his wife; and three daughters, Betty Ann, Wilma June and Dorothy Jane, all of Commerce.

Dr. **Raymond J. Schmid** of New Ulm, Texas, died suddenly March 22, 1944, of heart disease.

Dr. Schmid was born September 17, 1876, in Austin County, Texas, the son of John and Emillie Schmid. His academic education was received in the public schools and Blinn College, Brenham. His medical education was obtained in the Kansas City Medical College, from which he was graduated in 1901. He began the practice of medicine at Industry, Texas, where he remained for seven years. He then located in New Ulm where he was in practice until 1922, at which time he removed to Houston and engaged in the drug business. In 1923, he returned to New Ulm where he practiced medicine for the remainder of his professional life.

Dr. Schmid was a member of the Austin County Medical Society, State Medical Association and American Medical Association continuously from 1935 until his death. He served the Austin-Waller Counties Medical Society as president in 1938. He was a member of the Sons of Herman, which fra-

ternal organization he had served as secretary and treasurer. Dr. Schmid was greatly beloved in Austin County, and his services as a physician will be sorely missed in the community in which he practiced for approximately thirty-five years.

Dr. Schmid was married twice. His first wife, the former Miss Louise Boelsche of Industry, to whom he was married in 1902, died in 1923. He was married March 12, 1925, to Miss Jennie Victoria Strnadel of Temple. He is survived by his wife; one son, Hubert Raymond; four brothers, Victor and Rudolf Schmid of Shelby, Edwin Schmid, Brenham, and Paul Schmid, Houston; and two sisters, Mrs. Anna Gaiter, Bellville, and Mrs. Francis Schultz, Victoria.

Dr. Charles S. Hale of Cisco, Texas, died March 22, 1944, at his home, of influenzal pneumonia.

Dr. Hale was born October 19, 1869, in Jonesboro, Arkansas, the son of William T. and Lennie Hale. His medical education was received in the Vanderbilt University School of Medicine, from which he was graduated in 1890. He later took postgraduate work in Chicago. He began the practice of medicine in Jonesboro, Arkansas, where he remained ten years. He then lived and practiced in Breckenridge and Wichita Falls, prior to his location in Cisco, which had been his home for the past twenty-three years.

Dr. Hale was a member for many years of the State Medical Association and American Medical Association through the county medical societies of his places of residence. He had served the Eastland-Callahan Counties Medical Society as president. He was a member of the Thirteenth District Medical Society. For many years he had specialized in diseases of the eye, ear, nose and throat. Dr. Hale was greatly beloved in the area in which he practiced, and he will be sorely missed.

He is survived by his wife, the former Miss Margaret Norvell, to whom he was married in July, 1894, at Paragould, Arkansas. He is also survived by a daughter, Ester Hale, Cisco, and a son, Charles Hale, Jr., of Conroe.

Dr. John M. McCuan of Farwell, Texas, died July 2, 1944, of heart disease.

Dr. McCuan was born July 16, 1864, in Cedar Grove, Kaufman County, Texas, the son of Edward and Biddie McCuan. His academic education was received in the schools of the community where he was reared. He taught school for two years before beginning the study of medicine in the Memphis Medical College, Memphis, Tennessee. He later took postgraduate work. He began the practice of medicine at Iwlet Green, Texas. He had also practiced at Quinlan, Hunt County, and in Hood County before his location at Farwell, Parmer County, Texas, in 1915, which was his home for the remainder of his professional life.

Dr. McCuan was a member for many years of the State Medical Association and American Medical Association through the county medical societies of his various places of practice. While residing in Kaufman County, he served as president of the Kaufman County Medical Society. He had served as health officer of Parmer County continuously for the past twenty years. He was a member of the Baptist Church, and a Mason. He took particular interest in Masonry, being a member of the Royal Arch Chapter and had served in various capacities, including the office of District Deputy Grand Master.

Dr. McCuan was a member of the old school of family practitioners and his professional career spanned a period from horseback practice, with pill-bags, through the horse and buggy days to the period of the automobile. He was held in high esteem by all who knew him.

Dr. McCuan was married twice. His first wife died five years ago. He was married three years later to Mrs. Nora Inman who survives him. He is also survived by a son and daughter by his first marriage, Gordon McCuan of Farwell, and Mrs. Lula Belle Pearce of Vernon; four grandchildren, and three great-grandchildren.

Col. James Halbert Gambrell, M. C., U. S. A. R., of El Paso, Texas, prior to his entry into the armed services, died April 23, 1944, at Dallas, of coronary occlusion.

Dr. Gambrell was born March 20, 1885, at Brookhaven, Mississippi, the son of Dr. Joel Halbert and Victoria (Pickens) Gambrell. His preliminary education was received in the public schools of Brookhaven, Mississippi, and Tyler, Texas. He attended Marion Military Institute, Marion, Alabama, and Baylor University, Waco. His medical education was obtained in the Baylor University College of Medicine, Dallas, from which he was graduated in 1910. He served an internship at St. Paul's and Baylor hospitals, Dallas, following which he took postgraduate work in the John B. Murphy Clinic, Chicago, and the Mayo Clinic, Rochester. Minnesota. He began the practice of medicine in Dallas in 1912, where he remained until 1916. During this time he was instructor of surgery at Baylor University College of Medicine. In 1916, he accepted a commission as lieutenant in the medical corps of the Texas National Guard, and served on the Texas-Mexican Border during the punitive campaign against Pancho Villa. At the conclusion of this service, he returned to private practice in Dallas, but was almost immediately recalled to active service in the medical corps of the Army in World War I. During this conflict he served as a major with the 36th Division in France. Following that war, he located in El Paso in 1919, where he practiced medicine and surgery for twenty-three years. In 1942, he was again called into active service as a colonel in the medical corps of the Army. He served as commanding officer of the 51st, 67th and 96th General Hospitals when these units, each in turn, were activated and trained for overseas duty. He then became medical training officer of the Military Training Division of the Eighth Service Command, Dallas, and it was during this period of service of his country that he died in the line of duty.

DR. J. H. GAMBRELL

Dr. Gambrell was a member continuously for many years of the State Medical Association and American Medical Association, through the Dallas County Medical Society while residing in Dallas, and the El Paso County Medical Society after his removal to El Paso. He served the State Medical Association as secretary of the Section on Surgery in 1926. He also was a member of the Southwestern Medical Association. He had served as chief of staff of the Masonic Hospital, El Paso, and the El Paso County

Hospital. Dr. Gambrell took an active interest in civic affairs of El Paso. He served as a member of the El Paso School Board during 1920 and 1921. He had also served as president of the El Paso Kiwanis Club. He was a member of the Baptist Church and was especially interested in Masonry, being a past Commander of the El Paso Commandry No. 18, a Past Potentate of El Maida Shrine, Temple, and a K. C. C. H. Scottish Right Mason in the El Paso Consistory No. 3. He had also served as president of the Forty and Eight Club and the National Sojourners No. 74. He was a member of the American Legion and the Southwest Sun Carnival Board. He was held in high regard as a capable physician and surgeon and citizen.

Dr. Gambrell was married to Miss Orell Harris of Roswell, New Mexico, on December 17, 1913. He is survived by his wife; a son, Lieut. James H. Gambrell Jr., now serving overseas with the U. S. Army; a daughter, Mrs. J. Howard Maxon, El Paso; his mother, Mrs. Joel H. Gambrell, Dallas; two sisters, Mrs. Newton Holloway and Mrs. C. Marshall Henry, Dallas; two brothers, Roderick D. Gambrell and Herbert P. Gambrell, Dallas; and one grandson, Jimmy Maxon, El Paso.

Dr. **Pentice M. Bristow** of Stanton, Texas, died June 12, 1944, in a Big Spring hospital, of cancer of the liver.

Dr. Bristow was born November 4, 1877, in Clinton County, Kentucky, the son of Mr. and Mrs. J. L. Bristow. His medical education was received in the University of Tennessee, from which he was graduated in 1905. He then served an internship in Garfield Hospital, Washington, D. C. He practiced medicine in Kentucky and Tennessee for five years before moving to Texas. He had lived and practiced at Paducah and in Grayson and Collin Counties, and for a short period of time in New Mexico before locating in Stanton in October, 1922. He had been in practice continually in Stanton since that date until his final illness.

DR. P. M. BRISTOW

Dr. Bristow was for many years a member of the State Medical Association and American Medical Association, through the county medical societies where he lived. He had served as health officer of Martin County and of Stanton. He was held in high regard by his medical associates and the clientele he served.

Dr. Bristow was married January 7, 1900, to Miss Vinnie V. Williams in Burksville, Kentucky, who died March 15, 1939. He was married January 10, 1942, to Mrs. Ida Mae Laird, who survives him. He is also survived by two daughters, Mrs. George B. Long, Lubbock, and Mrs. Paul Rix, Odessa; and one son, Prentice M. Bristow II, now serving in the Navy in the Southwest Pacific; two stepdaughters, Mrs. Q. P. Quisenberry, Bellflower, California, and Mrs. Clyde Waid, Great Bend, Kansas; and one stepson, James E. Laird, U. S. Navy. He is also survived by a brother, Dr. W. S. Bristow, Albany, Kentucky, and six grandchildren.

Dr. **Albert Mouzon Gantt** of Houston, Texas, died suddenly June 2, 1944, of coronary occlusion.

Dr. Gantt was born October 7, 1875, in Summerville, South Carolina, the son of the Reverend Albert Gamewell and Emma Ann Catherine (Browning) Gantt. His father was a Methodist minister, and his mother a descendant of the famous poet, Robert Browning. He received his preliminary education in the public schools of Belwood, North Carolina, and Trinity College, now Duke University. He then attended the College of Physicians and Surgeons for one year, completing his medical education in the Louisville Medical College, Louisville, Kentucky, from which he was graduated in 1902. He served that institution for one year as assistant professor of anatomy and physiology. He then practiced medicine for one year at Lubbock, Texas. In 1903, he removed to Dallas, where he was in general practice until 1913. He then took postgraduate work in pulmonary diseases and internal medicine, following which he continued practice in Dallas until 1928, at which time he moved to Midland, Texas, where he was in practice for four years. He lived and practiced in Gladewater, Texas, for five years, after which time he moved to South Texas, practicing for a time at La Porte and Columbus prior to his location in Houston, which was his home for the remainder of his professional life.

DR. A. M. GANTT

Dr. Gantt had been a member for many years of the State Medical Association and American Medical Association through the county medical societies of his various places of practice and was in good standing at the time of his death. He was a member of the South Texas District Medical Society. While residing in Dallas he was vice-president of the Dallas County Medical Society, and during his residence in Midland he served as president of the Ector-Midland-Martin-Howard Counties Medical Society in 1931. During the present World War, he served as a member of the board of examiners for Selective Service from 1940 until his death. He was a past surgeon general of the Sons of the Confederate Veterans for the Trans-Mississippi Department. He was held in high regard by all who knew him. While in Dallas he was a member of the Dallas Chamber of Commerce. He was a member of the Methodist Church and a Mason.

Dr. Gantt is survived by his wife, the former Miss Eula Gee, daughter of the late Col. Leonard Groce Gee, who served in the Civil War. He is also survived by two daughters, Misses Eula Gee and Alberta Mouson, Houston; and two brothers, Dr. Marvin A. Gantt and G. D. Gantt, both of Houston.

Dr. Nelson E. Laidacker of China, Texas, died May 25, 1944, of angina pectoris.

Dr. Laidacker was born March 16, 1869, in Danville, Pennsylvania, the son of Mr. and Mrs. Daniel Laidacker. His academic education was received in De Pauw University, Greencastle, Indiana, from which he received both the B. A. and M. A. degrees. His medical education was obtained in the Medical Department, University of Indiana, Indianapolis, from which he was graduated in 1903. He began the practice of medicine in Houston, Texas, where he remained one year. He then located in China, where he was in practice continuously for the remainder of his life.

Dr. Laidacker was a member throughout his professional life of the Jefferson County Medical Society, State Medical Association and American Medical Association. He was also a member of the Texas Pharmaceutical Association. Dr. Laidacker was a pioneer Texas physician. He began his practice at China on horseback and drove a pair of horses with a buckboard over open prairie before roads were built in that area. He owned and drove the first automobile in the area where he practiced. He did not keep books and depended upon people to pay him what they could for his services. His principal earnings were from real estate and oil leases. He operated a drugstore in connection with his practice and dispensed his own medicines. He had a large practice and worked unceasingly until the end of his career. He was genuinely beloved by the people he had long and faithfully served.

Dr. Laidacker served as a colonel in the medical corps of the U. S. Army during the Spanish-American War, and saw service in Cuba. He was a member of the Lutheran Church.

He is survived by his wife, the former Miss Anna Peveto of Nome, to whom he was married May 22, 1921. He is also survived by one son, Nelson W. Laidacker, China; two daughters, Mrs. R. B. Mackan and Mrs. Ivan Seaberg, both of China; a brother, Elmer Laidacker, Watsontown, Pennslyvania; and six grandchildren.

Dr. Irvin H. McDaniel of Alto, Texas, died May 15, 1944, at his home.

Dr. McDaniel was born October 4, 1868, in Laurens County, South Carolina, the son of J. R. and Rebecca McDaniel. His academic education was received in the schools of his community. His medical education was obtained in the Chattanooga Medical College, Chattanooga, Tennessee, from which he was graduated in 1897. He began the practice of medicine in Athens, Georgia, where he remained until 1900. He then removed to Maud, Texas, where he lived and practiced until 1907. He then took postgraduate work in the Medical College of Chattanooga, and at Tulane University School of Medicine, New Orleans. After completion of these postgraduate studies, he lived and practiced at Sims, Weir and Lovelady until his location in Alto in 1935. He had practiced medicine for nearly forty-seven years.

Dr. McDaniel was a member for many years of the State Medical Association and American Medical Association through the county medical societies of his various places of practice. He was a member of the Baptist Church and the Woodmen of the World. He was a successful physician and had rendered useful service throughout his life to the community in which he had lived, as a physician and citizen.

Dr. McDaniel is survived by his wife, the former Miss Lola White of Maud, Texas, to whom he was married June 8, 1902. He is also survived by a daughter, Mrs. C. R. Mounce, Goose Creek, Texas.

Dr. Arvel Rodolphus Ponton of Fort Worth, Texas, died April 11, 1944, in a Fort Worth hospital, of injuries received when his horse tripped and fell, rolling over on him. Dr. Ponton sustained the fatal injuries at his ranch near Aledo, Texas.

Dr. Ponton was born January 1, 1885, at Douglas, Kansas, the son of John R. and Martha E. (White) Ponton. His academic education was received in the University of Oklahoma. His medical education was obtained in the Kansas City Medical College, from which he was graduated in 1906. Following an internship in the Kansas City General Hospital, he began the practice of medicine at Copperas Cove, Texas, when he was twenty-one years of age. In 1908, he removed to Post City, Texas, where the late C. W. Post built the first hospital operated by Dr. Ponton. In 1917 he moved to Lubbock, Texas, where he built the Lubbock Sanitarium and served as its chief surgeon until 1920. He then moved to Fort Worth, Texas, where he established the Protestant Hospital, now the Pennsylvania Avenue Hospital, which he operated for several years. He later built the Denton Hospital at Denton, Texas, and at the same time leased the Edinburg Hospital at Edinburg, Texas. He learned to pilot a plane and flew his own plane weekly to the Edinburg and Denton hospitals, while maintaining a large surgical practice in Fort Worth. In 1936, he established the Ponton Clinic in Fort Worth, which he had since operated.

DR. A. R. PONTON

Dr. Ponton was a member throughout his professional life of the State Medical Association and American Medical Association through the county medical societies of his places of practice. He had kept well abreast of surgical advances throughout his professional career by postgraduate work in various clinical centers. He was an accomplished surgeon and held in the highest esteem by his medical confreres and the large clientele he served. He was a member of the Methodist Church, a thirty-second degree Mason, and a member of the Shrine.

Dr. Ponton is survived by his wife, the former Miss Faye Hutcheson of Weatherford, to whom he was married November 14, 1917, at Snyder, Texas. He is also survived by a son, Dr. Arvel R. Ponton, Jr., now serving as a first lieutenant in the medical corps of the U. S. Army; a daughter, Miss Virginia E. Ponton, all of Fort Worth; his mother, Mrs. Elizabeth Ponton; two brothers, G. W. Ponton and S. C. Ponton, and a sister, Mrs. B. F. Ogg, all of Ottawa, Kansas.

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EDITORIAL OFFICES: 1404 W. El Paso Street, Fort Worth, Texas
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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

Medical Branch State University Again in Spotlight.—In a report to the Board of Regents of the State University, President Dr. Rainey recently raised the question as to whether the Medical Branch of the University should be removed from Galveston to some other center in the state. He recommended such removal, and to Austin, where it could be merged with the Main University. While the question is of course a highly controversial one, and certainly the JOURNAL can hardly voice an opinion in the matter unless and until the Association formally sets up a policy with regard thereto, however, the situation is of such importance that it should receive the attention of the medical profession of the state. In order that this may be done, we are publishing herewith pertinent material, most of it already published in the newspapers of the state, but nowhere as completely and consecutively.

We quote first from the above mentioned report of President Rainey:

"No phase of the University's life needs more careful study and planning than that related to its program for health education. In health education we include medicine, dentistry, pharmacy, nursing, medical research, child health, cancer hospitalization and cancer research, and mental hygiene. In these fields the University is conducting a comprehensive and varied program. The program, however, is widely scattered, poorly coördinated, very uneconomical, difficult to administer and is consequently a very inadequate and ineffective one to meet the rapidly growing needs of the state for professional leaders in all these areas. Not a single one of our professional schools of medicine, dentistry, pharmacy, and nursing meets adequately the standards set up by their respective national professional organizations which standardize and rate them.

"Since 1920 every department and school or college of the Main University at Austin has made very substantial progress. The Main University has, in the meantime, achieved outstanding distinction among American universities by being ranked among the 34 leading graduate schools in America. It is one of only four such schools in the entire South. It is clear that the Medical Branch has simply not kept pace with the development of the rest of the University, and it is continuing to lag far behind.

"The American Medical Association and the American Association of Medical Colleges in report after report for twenty-five years or more have pointed out the glaring deficiencies of our Medical School.

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"Since 1937 we have made some improvements. We have increased the financial support three-fold. We have clarified a highly confused administrative set-up. We have secured the return of the John Sealy Hospital to the University's management and have secured $275,000 per year from legislative appropriations for its support. But we still have far to go and much to do to bring the school up to acceptable standards. A recent report made by the Association of Medical Colleges warns us that we must either improve our buildings and equipment and clinical facilities or reduce our classes to 50 or 60 students. We are thus at a critical crossroads with regard to our Medical School. We are faced with the stern necessity of making some radical and marked improvements or the possibility of either losing our standing as a Class A medical school or of having to reduce our classes to approximately one-half their present size.

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"We have just this past year acquired the Texas Dental College in Houston, and have made it the School of Dentistry of The University of Texas. It is not now approved by the American Dental College Association, and we have much to do in order to bring it up to the standards required by that Association.

"In addition to the necessity of providing ade-

quate building space for the School of Dentistry, which will cost probably as much as $1,000,000 a very substantial increase in funds for current operations will be needed. The budget for the School of Dentistry for the year 1944-1945 is approximately $165,000. The Dean of this chool estimates in order to develop an adequate program of dental education the annual budget should probably be in excess of $300,000.

"We also operate the John Sealy College of Nursing. This College is substandard, and does not have the recognition of its national accrediting association. Thus, with regard to this unit, also we must plan for its improvement in order to bring it up to first-class standards.

"What steps and policies are necessary to remedy these deficiencies and go bring all of these professional colleges up to first-class standards?

"The first issue is obvious and fundamental to all other considerations. It is the question of location. The Medical School and the College of Nursing are in Galveston. The School of Dentistry is in Houston, the College of Pharmacy is in Austin. Before any other adequate planning can be done to improve these professional schools, it must be determined whether the present location for each of them is satisfactory or whether some other solution is necessary.

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"When the Medical Branch was located in Galveston several considerations influenced that decision. Galveston was at the time the largest city in Texas, and gave promise of continuing to be. A medical school needs to be placed in a large population center to insure an adequate and varied supply of clinical materials for teaching purposes. It was also a port city which meant that it could supply an unusual variety of clinical materials. Important also as a factor in its location in Galveston was the help promised by the Sealy family and the coöperation of the City of Galveston.

"Galveston is no longer the largest city in Texas. It has not kept pace with the development of other Texas cities, and it is now far removed from the center of population in Texas. For at least 25 years it has not been able to supply adequate clinical materials for teaching purposes in the Medical School, and there is no way that sufficient clinical materials can be furnished in Galveston without great expense in building additional hospitals and in providing transportation costs. In my judgment if the Medical Branch is left in Galveston it is doomed to mediocrity.

"The contributions made by the Sealy family and the Sealy-Smith Foundation to the John Sealy Hospital and for the support of the indigent sick of the City of Galveston have been magnificent. The University gratefully acknowledges the splendid help given to it by this benevolent family through all the years. A frank evaluation of the situation, however, reveals that three major handicaps exist and have existed as a result of these relationships. In the first place, the Sealy-Smith Foundation has been, and is, primarily concerned with furnishing hospital and medical care to the indigent sick of the City of Galveston, and not in furnishing teaching hospital and clinical materials for the Medical School. The funds which they have given have aided medical education indirectly.

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"The second major handicap has been, and is, in terms of the relationship between the giving of money and the control over the purposes for which it is used. It is still true that 'he who pays the fiddler calls the tunes.' Gifts inevitably limit the uses for which they are made, and to that extent control the policies of the institution receiving them. The University inevitably has to formulate its policies with regard to the entire medical program in Galveston in the light of its realtions to the Sealy-Smith Foundation. To that extent our policies are not freely determined.

"A third problem arising out of our relationships with the Sealy-Smith Foundation is psychological and political. It has been, and is, difficult to persuade the Legislature to appropriate adequate funds to support the John Sealy Hospital and the nursing program. The inevitable question raised by members of the Legislature is: 'Why can't you get the money you need from the Foundation?' We can never have the type of teaching hospital that we need until it is supported entirely by the state, whether in Galveston or elsewhere. This fact, too, was fully appreciated by the Legislative Committee in 1920.

After five years of careful study of the problem it is my reasoned opinion that we should move the Medical School, the College of Nursing, and the School of Dentistry to Austin. In support of this opinion I would offer the following arguments in addition to those already made:

"(1) The building facilities at Galveston are very inadequate and a considerable part of them are either obsolescent or in very poor condition. If we remain in Galveston it will be necessary to rebuild the main John Sealy Hospital unit, and to build an enlarged hospital with a minimum of a thousand beds. The Old Red Building is also obsolete and should be replaced. Our facilities for laboratories and research are either nonexistent or wholly inadequate. A reasonable estimate of the sum of money necessary to provide these hospitals and equipment in Galveston is from three to five millions of dollars.

"If the School of Dentistry is left in Houston it will also be necessary to spend approximately $1,000,000 in order to provide adequate buildings and equipment for its use.

"If these two sums were made available in Austin and were combined with the sum for the Pharmacy and Science Building required for the Main Campus we would have a sum sufficient to provide classrooms, laboratories, and hospitals for all of Medicine, Dentistry, and Pharmacy.

"(2) The University's investment in Galveston and Houston is relatively small. In Galveston the University has invested in permanent buildings $1,382,781.84.

"In Houston at the School of Dentistry we have property valued at $100,000.

"The property in Galveston could still be used by the state for various hospital purposes such as: crippled children, tuberculosis, psychopathic, venereal diseases, and the like.

"The School of Dentistry property in Houston could probably be sold for a reasonable sum for business or other purposes.

"It should be pointed out that in Galveston the Sealy-Smith Foundation has the funds to build a hospital for private patients, and has also offered to give the University $1,000,000 to build a new hospital if the University will appropriate a similar sum for this purpose, and in Houston the Anderson Foundation has offered to give the University $500,000 to build a new Dental School if the University will appropriate a similar sum for that purpose. Thus, of the sum necessary to meet our building needs in Galveston and Houston, $1,500,000 of it will be available to the University by gifts from these two foundations. This is an important factor in the solution of our problem, and cannot be overlooked. It is reasonable to expect, also, that in the future additional sums of money will be given to the University by these same Foundations, and by others as well. But as important as these gifts are, we should not overlook the values of other locations. A million or two dollars, after all, is relatively an

insignificant sum to the great State of Texas over a long period of years. Furthermore, it is reasonable to presume that, if the schools were located in Austin, gifts from wealthy friends and foundations would come to them here. We should not, therefore, give too much weight to the current situation and allow a short past to outweigh a long future.

"(3) Another factor operating against keeping the Medical School in Galveston is the rather large financial losses that recur rather frequently due to damages from Gulf storms. The Legislative Committee in 1920 called attention to this factor. From the records available it is not possible to get an accurate or reliable estimate of how much these damages have been over a period of years, but from the partial records that we do have it can be seen that losses from this source are considerable. Our records show that the storm damage of 1943 required approximately $75,000 for repairs. Over a period of years this damage has probably averaged as much as $10,000 per year.

"(4) Perhaps the most serious deficiency at Galveston is the lack of adequate clinical materials for teaching purposes. Practically every report that we have upon the subject indicates that our present clinical materials are adequate for classes of not more than 50 or 60 students. It can be argued that if we had more hospital beds in Galveston we could have all the clinical materials that would be needed. These additional hospital beds will have to be provided through the construction of new hospitals. These new hospitals might just as well be built in Austin as in Galveston. Furthermore, even if they were built in Galveston the transportation costs of taking the patients to Galveston would be greater than if the hospital were more centrally located.

"(5) It is very expensive and uneconomical to operate the Medical School in Galveston, the School of Dentistry in Houston, and the College of Pharmacy and all basic sciences in Austin. There is duplication in training in the basic sciences, such as physiology, bacteriology, biochemistry and the like in Galveston, Houston and Austin. If all of these professional schools were located at the Main University, all of these basic sciences could be combined into one fine set of departments. Pharmacy is a good example of what could be done in this connection. Since the College of Pharmacy is with the Main University, pharmacy students enroll for their chemistry in the regular chemical courses of the University. No special chemistry courses are given for them. It could be handled the same way for medical and dental students in these basic science courses. It should be pointed out here that the Legislative Committee in 1920 recommended uniting medicine, pharmacy, and dentistry.

"(6) One of the arguments made against moving the Medical School from Galveston is that we would sacrifice the large investment in the present plant and equipment. There are two answers to this argument. In the first place, the University's investment in physical plant is relatively small. Our records show that the University has invested $1,382,-781.84 in the medical plant in Galveston. This is not a large investment. Furthermore, as has already been pointed out, a considerable part of the physical plant there is in very poor condition and should be replaced at the earliest possible moment. Replacement costs might as well be made at Austin.

"In the second place, if the University should move from Galveston, the John Sealy Hospital would revert to the Sealy-Smith Foundation to be used for the indigent sick of the City of Galveston. Furthermore, the buildings now owned by the state, such as the Crippled Children's Hospital, the Psychopathic Hospital, etc., could continue to be used by the state for hospital purposes. The state needs much more hospitalization than it has available. It would seem, therefore, that no important value would be lost to the state or the University in the Medical School's removal. The people of Galveston would continue to get just as much hospitalization and medical care as they are getting today.

* * * * *

"By placing the entire program in Austin we could effect certain savings. For example, if we built a 1,200 bed hospital adjacent to the campus we could use it also for our student hospitalization and eliminate $500,000 for our student health center. Similarly in our Pharmacy, Biochemistry, Biology Laboratory, and Chemistry Laboratory buildings we could take care of a considerable part of the basic sciences for medicine, dentistry, and pharmacy. Our expenditure for a dental building might, in this way, be reduced from $1,000,000 to $500,000.

"The cost figures quoted above are for initial capital outlay. Another very important aspect of cost to the University is that of economy in operating costs. The proposed combined program in Austin will undoubtedly make possible large operating economies, but it is difficult to make a reliable estimate of such economies. Some are clearly indicated, however, such as: combining of all hospitals, including the student hospital, into one large plant; and teaching all the basic sciences for medicine, pharmacy, and dentistry and nursing in the regular science departments of the Main University.

Dr. Chauncey D. Leake, Dean of the Medical Branch of the University, is not in favor of the proposal of Dr. Rainey that the school be removed to Austin or anywhere else. He submits the following facts pertaining to the Medical Branch:

"1. Value: Land, buildings, equipment, carried at cost as of August 31, 1944, at $4,463,346.64, not counting State Psychopathic Hospital nor Stewart Convalescent Home.

"2. Standing: Medical School fully approved by Council on Medical Education and Hospitals of American Medical Association and by Association of American Medical Colleges; Nursing School fully approved by State Board of Nurse Examiners, only accrediting agency recognized by American Medical Association; John Sealy Hospital, one of only seven Texas hospitals approved by American College of Surgeons, and by Council on Medical Education and Hospitals of American Medical Association for interne and resident training, and whose nursing training is approved by State Board of Nurse Examiners; Curricula for medical laboratory technicians and physiotherapists approved by Council on Medical Education and Hospitals, American Medical Association.

"3. Staff: Need 200 teachers (1 per 10 students per course, with 20 major courses and 100 students per course), have 174; had 158 in 1943; 86 in 1939. Clinical teachers now 66, with 33 on 'full-time,' not engaged in private practice. In military service, 18. Holding prominent office in major professional organizations, 22. Published over 100 original scientific and clinical research contributions and 3 important medical books in 1943 and 1944. Participated in over 100 postgraduate training sessions in this country and abroad, in 1943 and 1944. Regular consultants for war effort, appointed by military or war agencies, 10.

"4. Clinical Material: Need at least 5 beds per clinical student, or 1,000 bed hospital. Have 420 bed hospital (State Psychopathic Hospital, 100 beds, closed). For fiscal year ending September 1, 1943, had 2,365 Galveston charity patients, for 32,953 patient-days; 3,001 state referred charity patients, for 64,055 patient-days; 3,988 pay patients, for

52,654 patient-days, at average patient-day cost of $4.90; 1,275 state referred patients were admitted through diagnostic clinic on physicians' requests from 124 counties in the state (balance from state agencies). State appropriation for year for hospital was $391,000. Waiting list daily over 60. With more beds and more support many more patients could be handled. Out-patient visits to the Clinic totaled 101,432 for the year, or about 300 per operating day.

"5. Sealy and Smith Foundation: Charted solely for support of John Sealy Hospital; operates with regents $700,000 trust fund; has potential assets over $15,000,000. Now offers University $1,500,000 for erection of general hospital, planned in 1939, to provide needed beds. From 1888 to November 1, 1942, the Sealy family and the Sealy and Smith Foundation have expended for the benefit of the John Sealy Hospital, $3,443,279.43. To provide for care of indigent sick of Galveston, used for teaching, and for repairs and upkeep of the hospital, the Foundation has given an average of $85,280 yearly since 1927.

"6. Health Program: For benefit of people of state, to utilize for health education and research, suitable health facilities wherever they may exist in the state. Implied is coördination of Medical School, Nursing School, and technicians curricula at Medical Branch, Galveston, for undergraduate and postgraduate teaching and research, with preceptorial centers for such efforts in Houston, San Antonio, Dallas, Temple, Wichita Falls, Austin and other centers, with the Dental School and the M. D. Anderson Hospital for Cancer Research in Houston, with the Hogg Foundation for Mental Hygiene, the College of Pharmacy, and other health activities at Austin, with the Child Health Program under the auspices of the William Buchanan Foundation of Texarkana, and with planned School of Public Health, and Institute for Study of Old Age."

The following resolution pertaining to the Medical Branch of the University, recently prepared by the Medical Committee of the Board of Regents, was adopted by the Board:

"We, your Medical Committee, recommend that the Board of Regents of the University of Texas express to the staff and faculty of the Medical Branch our sincere appreciation and our full and complete confidence for the successful organization, coöperation and accomplishments that have been done and performed by those directly responsible for the conduct and operation of the Medical School since it has been under the supervision and control of Dr. Leake. The administration of the Medical School has had and now has the complete coöperation of and the unified efforts of every department and faculty member of said Medical School as well as the very generous coöperation and confidence of the Sealy-Smith Foundation which has for many years been the principal benefactor of the Medical Branch, without which the school in the past could not have been successfully conducted."

It is understood that the Chamber of Commerce of both Galveston and Houston will join in resisting any movement looking to the removal of the Medical and Dental Colleges of the State University from Galveston and/or Houston, to Austin or any other point in the state. Any such removal will require an amendment to the Constitution, which means by vote of the people, all of which will allow plenty of time for full consideration of the problem by the people of the state.

There will be found in the News columns of this number of the JOURNAL, p. 307, a summary of items appearing in the newspapers of the state on this subject, which are informative and should be read.

The Southern Medical Association Meeting will be held this year in St. Louis, Missouri, November 13-16, both dates inclusive. This will be good news to Texas doctors. The rumor has been mildly prevalent that this great medical organization would abandon its meeting this year because of the war. Mature consideration of the war situation has led to the conclusion that physicians need such a meeting, as do their patients. Those physicians engaged in military service to whom the meeting will be available, will also be well served thereby. Indeed, the meeting may be consistently held to be in line with our war effort. Physicians find it extremely difficult to meet the demands made upon them in civilian practice, and not only will this meeting furnish a very desirable interlude for them, but it will make available additional knowledge and inspiration through which their patients will definitely be benefited.

The Executive Committee of the Southern Medical Association long since decided that while the meeting this year will not be as streamlined as it was last year, it will not be as prolific and bulky as it was before the war. The meeting will formally open at noon, November 13, and the scientific activities will begin at 2:00 p. m. the same day and extend through November 16. The afternoon of the thirteenth and the morning of the fourteenth, will be given over to clinics presented by the physicians of St. Louis. The scientific sections will begin their meetings on the afternoon of the fourteenth and will continue through the sixteenth, each of the twenty-one Sections having a full half-day, in which time six papers will be presented.

It has been decided that there will be no President's reception and ball, or any other of the usual diversions, all because of wartime conditions. They do not seem right just at this time. However, quite probably those attending the meeting will be able to find something to do for entertainment in their spare time, if any.

All activities of the meeting, including registration, the scientific meetings, the scientific, technical and hobby exhibits, will be housed in the Municipal Auditorium, under one roof. Any Texas physician who wishes to offer anything along any of these lines,

should communicate immediately with the Secretary of the Association, Empire Building, Birmingham 3, Alabama, giving full details.

Attendance on the meeting is, of course, open only to members of the Association. However, any member of a state medical association may immediately become a member of the Southern Medical Association, upon the presentation of a state membership card, together with the membership fee, $4.00. It is better, of course, to join up in advance, which is easy to do. St. Louis is conveniently nearby, as we reckon such matters down our way, and always an attractive city to visit.

The Oklahoma City Clinics will be held this year, October 23-26, both dates inclusive. Any of our readers who may be interested, should write to the "Oklahoma City Clinical Society, 512 Medical Arts Building, Oklahoma City 2, Oklahoma," and we would advise that any Texas doctor who expects to attend these Clinics do something about it right away, particularly in the matter of hotel accommodations and, as soon as allowed, pullman reservations. While we anticipate that most of our members attending these Clinics will be able to do so by automobile, it may not certainly be so. There is the little matter of gasoline and automobile tires. Whatever the situation may be, there is need for advanced planning in connection with any such trip.

Texas physicians are well acquainted with this clinical meeting. Many of them have repeatedly attended this clinical conference, and we have never heard anything but favorable comment. We think it is quite worthwhile, and to be desired as a refresher opportunity. Particularly would we recommend this and other such clinics, to those doctors who have recently returned to civilian practice from a tour of duty with the Armed Forces. Ex-medical officers complain to us quite frequently that they need something of the sort and cannot get it.

The scope and plan of the conference will be as heretofore, including the general assemblies, dinner meetings and round table luncheons, always so popular. The registration fee is $10, which includes all the scientific features of the Conference, as well as round table luncheons, dinner meetings, and smoker.

Dr. Herman L. Kretschmer of Chicago, President of the American Medical Association, who is a distinguished physician and teacher, will be one of the contributors to the scientific program of the meeting. In addition, the following outstanding teachers in medicine will appear on the program:

Nathaniel G. Alcock, M. D., Urology, State University of Iowa College of Medicine; O. Theron Clagett, M. D., Surgery, Mayo Foundation; Charles C. Dennie, M. D., Dermatology, University of Kansas School of Medicine; Lawrence P. Engel, M. D., Surgery, University of Kansas School of Medicine; George P. Guibor, M. D., Ophthalmology, Children's Memorial Hospital, Chicago, Illinois; Tinsley R. Harrison, M. D., Medicine, Dean, Southwestern Medical College of the Southwestern Medical Foundation; Harold O. Jones, M. D., Gynecology, Northwestern University Medical School; Ralph A. Kinsella, M. D., Medicine, St. Louis University School of Medicine; Hugh McCulloch, M. D., Pediatrics, Washington University School of Medicine; Ralph H. Major, M. D., Medicine, University of Kansas School of Medicine; William F. Mengert, M. D., Obstetrics, Southwestern Medical College of the Southwestern Medical Foundation; Alan R. Moritz, M. D., Pathology, Harvard Medical School; Henry H. Ritter, M. D. Surgery, New York Postgraduate Medical School and Hospital, Columbia University; George E. Shambaugh, M. D., Otolaryngology, University of Illinois College of Medicine; James S. Speed, M. D., Orthopedic Surgery, University of Tennessee College of Medicine, and Bruce K. Wiseman, M. D., Medicine, Ohio State University College of Medicine.

The Motion Picture Lending Library of the State Medical Association of Texas, established by the Trustees in October, 1943, has proven to be a successful project as measured by its record of service. It was thought best not to spend a great deal of money on the project until the demand for increased service justified it. The very modest beginning and record of service of the Motion Picture Lending Library was concisely reported by the Board of Trustees to the House of Delegates meeting at Dallas, May 10. This report is considered of such importance that it is republished here, in part, for the benefit of any who may not have read the report in the Transactions in the June, 1944, number of the JOURNAL. An excerpt from that report follows:

". . . Since its establishment, 35 films have been acquired, of which number 15 are silent and 20 are sound films. Fourteen of these films are for professional audiences—doctors, medical students, medical technicians, or nurses, and 21 are for lay groups. Thirty-one of them have been furnished the Library by pharmaceutical and biological firms, and other agencies and organizations interested in either health or medical education. Of these, 19 films have been placed in the Library on a long-time loan basis, without charge, it being thought by these organizations and firms that the publicity given regularly through the pages of the JOURNAL, concerning the availability of the films, would result in their greater use.

"In five months, 56 films have been loaned, and have been shown to 2,363 persons, which is a fairly good record for a project launched in a period in which it is difficult for groups to find time for such study. We believe this project will in time be one of the most popular and valuable educational services the Library and Association can render its members, and, also, that it will be of outstanding usefulness to members of the Association and the Woman's Auxiliary in health education of the public on such subjects as cancer, tuberculosis, venereal disease, and so forth.

"So far, only two films have been purchased.

"Two members of the Association have donated

films—Dr. Herbert Hipps, Marlin, now in the armed services, a film on the 'Sister Kenny Treatment of Poliomyelitis,' and Dr. Louis Daily of Houston, a film, 'Refinements in the Technique of the Radical Mastoid Operation and an Improved Plastic Flap,' for which donations the Trustees express appreciation. It is believed that many members have excellent films of their work, which they will be glad to make available to their fellows by donating them to the Library.

"The Trustees wish here to record their appreciation of the very generous and valuable donation of twelve sound films by the Texas Tuberculosis Association. These are excellent films for teaching the public the simple principles of prevention of tuberculosis, and the orthodox and reliable procedures in its diagnosis and treatment. One of these films is in Spanish and will be very useful for showing to the Mexican population in parts of Texas."

We should like here to call special attention to a motion picture film, which has been made available to the Library for the months of October, November, and December, 1944, by the British Information Services, an agency of the British government, which has offices in Houston. The film referred to is entitled, "Psychiatry in Action." It is a 16 mm. sound film, consisting of seven reels, and the showing time is sixty-two minutes. The following is a brief description of the film, as furnished by the British Information Services:

"*Psychiatry in Action.*—This film was made at a special center set up by the Emergency Medical Service of the British Ministry of Health for the treatment of war neuroses.

"The story is a detailed account of the administration of the hospital, starting with the admission of the patients and the methods of investigation of each kind of case. It then shows some of the special treatments given, the work of physical rehabilitation, the occupational therapy, and ends with an account of what is done about the important problem of the disposal and after care of the patients when they are ready to leave."

County medical societies or physicians who would like to borrow this film during the three months period referred to, should immediately make request for the film, addressed to the Motion Picture Lending Library of the State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas. It is suggested that in making request for the film, three dates be given, in order of preference, so that the film will more likely be available than if only one date is given.

A list of other films in the Library, available for loan, may be found on page 68, of the June, 1944, number of the JOURNAL.

Other films may also be borrowed from the British Information Services, 513 Cotton Exchange, Houston 2, Texas.

Further Contributions to the Public Relations Fund Are Needed, if this very important service is to attain anything like maximum results. The Board of Trustees has appropriated sufficient money to carry on until December of this year, and will doubtless make further appropriations as may be required, but it must be remembered that the increase in dues made by amendment to our By-Laws at the last Annual Meeting will not become effective until the beginning of next year, and that in the meantime adequate financing of the campaign being waged and to be waged by our Committee on Public Relations will be a very definite financial strain on the State Medical Association. In any instance, there cannot be too much money available for publicity purposes if we are to convince the medical profession and the public of the importance of avoiding the inroads of socialized medicine.

The following contributions have been made since our last report:

161.	*Anderson, Houston, Leon Counties Medical Society*	5-31-44	$17.00
162.	Dr. E. B. Rogers, El Paso, *El Paso County Society*	6- 7-44	10.00
163.	Dr. Noble H. Price, Lamesa, *Dawson, Lynn, Terry, Gaines, Yoakum Counties Medical Society*	8-11-44	25.00
164.	Dr. Cary A. Poindexter, Crystal City, *Medina, Uvalde, Maverick, Val Verde, Edwards, Real, Kinney, Terrell, Zavala Counties Medical Society*	8-24-44	10.00

TONSILLECTOMY DURING INFANTILE PARALYSIS EPIDEMIC INADVISABLE

In view of the present evidence it would not seem wise to remove tonsils and adenoids when infantile paralysis is present, *The Journal of the American Medical Association* again advises in its May 20 issue. *The Journal* says:

"In his recent review of reports on the relationship between poliomyelitis and tonsil-adenoid operations, R. E. Howard lists no less than 259 cases of poliomyelitis, mostly of the bulbar type following tonsillectomy up to within sixty days. These cases were reported from various parts of the United States between 1910 and 1943. The patients were children as a rule not more than 12 years of age. The bulbar type of poliomyelitis was most frequent and caused many deaths. Nearly all these cases occurred in the presence of typical epidemics of poliomyelitis. While control observations are not available showing that poliomyelitis, under the circumstances mentioned, occurs more frequently in children after tonsillectomy and adenoidectomy than in children who have not been subjected to such operations, the clinical observations and impressions indicate that these operations may favor poliomyelitic infection. It would seem wise not to remove tonsils and adenoids when poliomyelitis is prevalent."

WELDING FUMES IN STEEL FABRICATION

PHILIP DRINKER, Sc. D., Ch. E.
Chief Health Consultant, U. S. Maritime Commission, Washington, D. C., and Professor of Industrial Hygiene, Harvard School of Public Health
BOSTON, MASS.
AND
KENNETH W. NELSON, LIEUT., H-V(S) U. S. N. R.*
Regional Health Consultant, U. S. Maritime Commission
CHICAGO, ILLINOIS

All modern welding processes are designed for the rapid production of intense heat within a small area. The process in greatest use today for steel fabrication and in production welding is the electric arc employing coated welding electrodes. Gradually the coated electrodes have displaced the uncoated, as it is possible with the coated rods consistently to make better and stronger welds at much higher speeds.

Like many industrial processes, welding has evolved a terminology of its own. Both direct current and alternating current are employed at the arc. When direct current is used polarity must be considered. When the base metal is made the positive terminal and the welding electrode the negative, the hook up is called "straight" polarity. Conversely, when the base metal becomes the negative terminal and the welding electrode the positive, it is called "reverse" polarity. These words may be confusing to the uninformed but are accepted usage in the welding fraternity.

Alternating current is employed at the arc in both large and small welding sets such as for production and repair work, especially in small shops. These sets usually use standard commercial 60 cycle circuits. Rods are now available for use with either A. C. or D. C. sets.

So far as health problems go, it makes no difference whether the set is A. C. or D. C., or whether reverse or straight polarity is used.

Shielded Arcs and Coated Electrodes.—The so-called shielded arc is produced by special coatings baked on the welding electrode. Some of this coating burns to form a protecting gas shield around the molten metal as the metal passes across the arc, while the mineral portion of the coating forms a protective slag on top of the molten metal. Thus there is less oxidation of metal, less formation of nitrides, the metal cools at the proper rate, and the work is done faster than is the case with bare electrodes. From the practical standpoint, virtually all production welding today is done with coated electrodes.

Welding Electrodes.—In the Welding Handbook[6] of the American Welding Society, one will find an excellent chapter on electrode coatings, weld metal, and slags. From this book we have drawn freely. Knowing our interest in the hygienic aspects of welding, the Welding Committee of the National Electrical Manufacturers Association obtained from its members the composition of their welding electrodes and coatings. The production of the firms contributing represents over 90 per cent of the welding electrodes made in the United States.

Welding electrodes are designated by various trade names corresponding to numbers assigned by the American Welding Society. Some of these numbers and their use in steel fabrication are as follows:

Number E 6010 is an all-position direct current reverse polarity electrode. It is used on common steel and galvanized iron. In the first quarter of 1944 it comprised about 48 per cent of the welding electrodes used in the United States. Number E 6011 is used on A. C. welding and in all positions (vertically, overhead or horizontally) but accounts for only 2 per cent of the total. Number E 6012 and E 6013 are known as cold electrodes and are used on straight polarity or on A. C. and account for 30 per cent of the total used. Numbers E 6020 are commonly called "hot rods" by the welders because they are used at high current densities resulting in high burn-off rates and deep penetration. They are adapted especially to downhand or filet work, A. C. or D. C. They comprise in use about 10 per cent of the total output.

Stainless steel electrodes were developed for welding corrosion-proof tanks and stainless steel of various kinds. They are used also on certain kinds of armor plate. They account for about 5 per cent of the total, while various special non-ferrous and ferrous alloy electrodes account for the balance.

The composition of the wire used in all of the E 6000 or mild steel and the stainless steel electrodes is given in the following table:

TABLE 1.—*Analyses of Wire in Mild Steel and Stainless Steel Welding Electrodes.*

Wire Analysis	Mild Steel (E 6000)	Stainless Steel
C	0.7 —0.25%	0.07—0.25%
Mn	0.40—0.60%	0.40—2.5%
Si	0 —0.30%	0.20—0.60%
S	0 —0.035%	0 —0.035%
P	0 —0.035%	0 —0.035%
Cr		18 —26%
Ni		8 —21%
Fe	Balance	Balance

The coatings used for these same types of electrodes are likewise controlled within lim-

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*The opinions and assertions herein are the private ones of the writers and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

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COLLEGE OF PHYSICIANS

its but it is permissible to vary the ingredients somewhat. In table 2 we give a summary of the analyses assembled for us by the welding electrode manufacturers.

There are several items in table 2 which need explanation. The moisture content is not constant, as the temperature at which the coatings are baked can be varied over a considerable range. Sodium silicate is the binder common to all coatings. Magnesium silicate, clay, asbestos, mica, and feldspar are used variously. Thus, a manufacturer can use the mineral feldspar or he can use a combination of several silicates to give substantially the same result. Titanium dioxide, usually as the mineral rutile, is a common agent for arc stabilization and may contain some zirconium dioxide as an impurity. Manganese, as ferromanganese, is added as a deoxidizer. Silica is not used as such but is present both as a mineral silicate and in sodium silicate. Calcium carbonate as limestone is used for slagging and is especially important in the stainless steel electrodes. These latter all contain calcium fluoride, usually as the mineral fluorspar.

TABLE 2.—*Analyses of Coatings in Mild Steel and Stainless Steel Welding Electrodes.*

Electrode Coatings	American Welding Society Types E 6010	E 6011	E 6012 E 6013*	E 6020 E 6030	Stainless
H_2O	Under 10%	Under 10%	Under 10%	Under 10%	Under 10%
Sodium silicate	30—40%	25—35%	10—20%	10—20%	15—20%
Cellulose	20—30%	20—30%	3—10%	Under 5%	
$MgSiO_3$	10—25%	15—30%	10—20%	5—20%	Under 10%
TiO_2	10—20%	10—35%	30—50%	Under 6%	Under 10%
Ferro Mn	10—20%	5—10%	Under 10%	5—20%	Under 10%
MgO		5—10%	Under 5%	Under 5%	
ZrO_2		Under 5%	Under 5%		
Al_2O_3(clay)		5— 7%	5—11%	Under 10%	
SiO_2			15—20%	10—30%	Under 15%
Feldspar			10—20%		Under 10%
Mica				10—20%	
$CaCO_3$				Under 10%	20—30%
Iron Oxide				15—30%	
MnO_2				10—25%	
CaF_2					20—30%
Mn					Under 10%
Mo					Under 5%
Cr					Under 5%

*Note: E 6013 same as E 6012 except cellulose may be up to 25%.

In mild steel welding with all of the E 6000 electrodes, the fumes evolved contain[5] about 60 to 70 per cent of $Fe_2O_3 + TiO_2$, from 10 to 30 per cent SiO_2, and from 2 to 12 per cent MnO_2.

When welding on galvanized iron, the total fumes increase with the introduction of some 65 per cent ZnO and a corresponding drop in $Fe_2O_3 + TiO_2$, MnO_2, and SiO_2. In welding with stainless steel electrodes, the total weight of fume is about the same as for mild steel welding but the analysis is quite different. The following is typical of fumes from stainless steel: SiO_2, 5.8; F, 17.6; Fe_2O_3, 16.1; Cr_2O_3, 8.3; NiO, 2.3; CaO, 9.7; MnO_2, 2.8.

Gases Evolved in Welding.—Both the electric arc and the acetylene torch fix some nitrogen from the air as oxides, the exact amount varying with operating conditions. One of these oxides, NO_2, is a lung irritant. It was pointed out previously that one of the functions of the coatings of modern welding electrodes was to prevent reaction of the weld metal with the oxygen and nitrogen of the air. It has been shown[5] that less NO_2 is formed with the coated than with the uncoated electrodes.

Carbon dioxide and water vapor are evolved in welding with coated electrodes but carbon monoxide in hygienically significant amounts has not been reported, so far as we know. In explaining the shielding action of the products of combustion of the coatings, welding experts suggest that CO is formed and then converted to CO_2 on leaving the immediate vicinity of the arc.

Theoreticaly HF could be evolved from the coatings of the stainless steel electrodes. In our gas cabinet we burned a great many such electrodes recently in response to complaints about the irritating nature of the fumes and found no HF. However, fluoride compounds are, of course, present.

The Effects of Breathing Welding Fumes.—Every welder knows what happens if he breathes excessive doses of zinc oxide, ZnO, from welding on galvanized iron. We have had some reports of metal fume fever come from physicians who were unaware of the significance of the chronology of events which accompany a typical attack of metal fume fever. Therefore, we reproduce a simple chart which illustrates this chronology.[4]

Following inhalation of zinc oxide the body temperature gradually increases, reaches a peak in about six to eight hours and is back to normal in about twenty-four hours. Leukocyte counts increase a little quicker and remain high a little longer than body temperatures. No therapy so far reported is of the slightest avail—we have tried hot baths and steam baths, milk, antipyretics, and various beverages (alcoholic and non-alcoholic). A certain resistance persists for the duration of the leukocytosis, and this perhaps accounts for the common industrial observation that attacks of the fever are unlikely on two successive days.

Sometimes the metal fume fever attacks induce severe coughing which may cause vomiting, but this is not common. It has been reported, however, fairly often, as it is apt

to worry the men more than anything else they experience in the course of such an attack.

Fatal pneumonias have been reported following a few instances in which men welded in relatively confined spaces without ventilation. But such occurrences are uncommon. The cause has been ascribed to the NO_2 gas, a powerful lung irritant. The evidence blaming the NO_2 is not altogether convincing but in the few cases reported there is no other reasonable explanation.

A recent study of some 864 cases of pneumonia in the Richmond, California, yards of the Kaiser Corporation, made by Collen, Dybdahl, and O'Brien,[1] showed that pneumonia was no more common among welders than among other crafts in the yards. They found, further, that the fatality rate was about the same for all shipyard crafts. Their data are shown in table 3.

TABLE 3.—*Relationship Between Incidence of Pneumonia and Occupation.* (After Collen, et al.)

Occupation	Number Cases	Number Deaths	Number Employed	Morbidity Rate Per 1000
Welders	159	14	15533	10.2
Shipfitters	74	11	7998	9.3
Flangers	60	6	4842	12.3
Laborers	53	5	4923	10.8
Burners	42	2	4389	9.6
Electricians	41	2	3575	11.5
Pipefitters	38	5	3117	12.2
Machinists	36	4	3153	11.4
Shipwrights	29	1	2768	10.5
Chippers	24	1	3076	7.8

In relatively few cases occurring among new employees we have had complaints of chronic coughs which wake the patient at night. Occasionally such illness has been accompanied by hemoptysis. On examination the chest has been reported as normal, there is no fever, and no indications whatever of tuberculosis. On assigning such a man to a workplace in which exposure to welding fumes is negligible, recovery is usually rapid and complete.

Ventilation in Welding.—In open shops it often is not necessary to use local exhausts. The general ventilation of the building may suffice. If production work is to be handled, such as pipe welding, it usually speeds up production to apply local exhausts with flexible hose. We have many such installations in our shipyards all over the country. Neither management nor labor would dispense with them.

In ship construction, both general ventilation and local exhausts are used. We admit that the intelligence and effectiveness with which ventilation is applied varies greatly. We have some yards where it is excellent and others where definitely it is not. As a guide, we recommend local exhausts drawing about 200 cubic feet per minute per welder with the exhaust hood placed within eight inches of the work.

Where general ventilation is the method used we recommend at least 400 cubic feet per minute per welder.

In galvanized iron welding, we suggest that concentrations of zinc oxide in the air breathed be kept below 15 mg. per cubic meter. We have yet to hear of metal fume

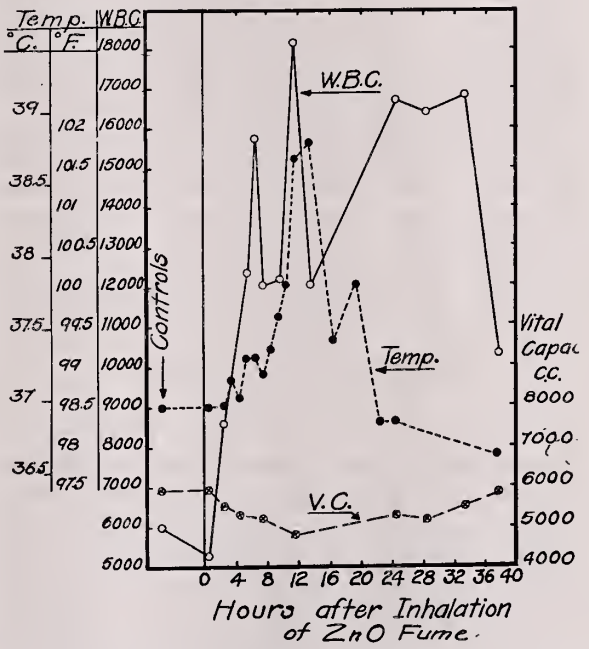

FIG. 1. Graph showing increase in leukocyte count, body temperature, and drop in vital capacity in a typical attack of metal fume fever. Note that fever abates before the white count returns to normal. (After Sturgis, et al., courtesy J. Indust. Hyg. & Toxicol, 9:88, 1927.)

fever being caused at concentrations below 15 mg.[2]

In welding mild steel, we suggested concentrations of Fe_2O_3 below 30 mg. per cubic meter.[3] Since Fe_2O_3 of itself causes no discomfort or measurable reaction, the 30 mg. is simply an empirical figure suggested as the easiest yardstick for estimating adequacy of ventilation. In shipyard work, we have had no complaints when air pollution was below 30 mg. We have had plenty of complaints when it exceeded this figure by an appreciable amount.

We have no figures for permissible pollution from welding with stainless steel. From experimental work, we know the fume is no harder to catch than that from welding with mild steel so that we recommend the same local exhaust ventilation—at least 200 cubic feet per welder per minute.[3] From limited trials we believe that the 30 mg. of Fe_2O_3 per cubic meter will serve as well for the stainless steel as for fumes from mild steel.

The conclusions which we believe can be

drawn from welding work all over the country are that when good ventilation is enforced there will be no trouble. When ventilation is ignored, especially on galvanized iron and stainless steel, justifiable complaints will be made.*

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(See also Minimum requirements for safety and industrial health in contract shipyards. U. S. Navy and U. S. Maritime Commission, 1943.)

NEWER KNOWLEDGE OF RHEUMATIC FEVER

GLADYS J. FASHENA, M. D.
DALLAS, TEXAS

According to the United States Bureau of Census statistics, rheumatic fever constitutes the greatest single cause of death in this country during the school age period. Contrary to widely held beliefs, evidence[6] has recently been presented to show that rheumatic fever is far from a rare disease in Texas, particularly in the northern portion of the state. Rheumatic infection probably constitutes a larger cause of morbidity and mortality in this area than has generally been appreciated. Because of the awakened interest in the disease in this vicinity, it seems timely to review some of the newer ideas concerning pathogenesis and treatment.

ETIOLOGY

The cause of rheumatic fever remains unknown in spite of the efforts of countless investigators. However, so many promising results along several different lines have been brought to light in recent years that the subject merits discussion at some length. The following etiological hypotheses have been put forth:

1. *Non-specific Streptococcal Infection.*—Ever since the work of Poynton and Payne in 1900 there have been workers who believe that rheumatic disease is caused by generalized infection with ill-defined types of non-hemolytic or alpha-hemolytic streptococci. It cannot be disputed that such organisms can often be cultured from the blood stream and from autopsy material but it seems equally clear that their presence is only accidental and not causally related to rheumatic infection. Wilson and Edmond[19] and Callow[2] showed that although a high percentage of positive blood cultures were obtained from rheumatic fever patients, an even higher percentage of positive cultures could be obtained from non-rheumatic subjects suffering from upper respiratory infections. Studies of this type have thus minimized the importance of positive blood cultures for non-hemolytic and alpha-hemolytic streptococci in rheumatic fever. Furthermore, experimentally produced bacteremias with such organisms have failed to reproduce the disease in the laboratory.

2. *The Allergic Hypothesis.*—In 1925 Swift[16] pointed out the similarity of certain manifestations of rheumatic fever to those of tuberculosis and syphilis. The basic point of similarity is the type of histo-pathologic lesions, a granulomatous reaction in each instance. In Germany, Klinge[9] and other workers have conducted many experimental studies dealing with the tissue changes resulting from hypersensitivity. The method used by all these workers is similar. Rabbits or other animals are sensitized by injections of horse serum and then given a further dose of serum, either into a joint or intravenously. The effect of injection into a joint is to cause an allergic arthritis, as might be expected. This is frequently accompanied by changes in distant organs. Such changes are also described following intravenous injection. These changes consist of foci of necrosis with cellular infiltration in skeletal muscle, sub-endothelial hyaline necrosis in arteries, degeneration and cellular infiltration in the heart muscle and heart valves. The localization of these lesions is attributed to physiological trauma. Like those of rheumatic disease itself, they appear in structures subject to stress or constant movement. The validity of this argument is largely a question of morbid anatomy. Are these lesions the counterpart of those seen in rheumatic fever? Aschoff himself vigorously denies the suggestion that these workers have experimentally produced the rheumatic nodule which bears his name. However, Drs. Rich and Gregory[11] of Johns Hopkins Hospital, have recently demonstrated that "rabbits subjected to experimental serum sickness develop, in some cases, cardiac lesions which in their essential characteristics resemble closely those of rheumatic carditis." These experi-

From the Children's Medical Center, Dallas, Texas, and the Department of Pathology, Southwestern Medical College, Dallas, Texas.

Read before the Section on Pediatrics, State Medical Association of Texas. Fort Worth, April 21, 1944.

*AUTHOR'S NOTE.—The Maritime Commission and Navy have prepared a sound strip film, "Welders—To Your Health!" We have found the film very helpful in teaching both workers and management the advantages of good working conditions for welders. We will furnish copies of this film and record at cost to any firm desiring it. It can be seen at most of the shipyards in the country.

ments differ from most of the preceding ones in that the hypersensitivity produced was of the anaphylactic type rather than of the bacterial allergy type. In no instance did the cardiac tissue of these animals abound in typical Aschoff bodies as is so often the case in rheumatic fever. However, valvular and myocardial lesions were produced which in their situation and basic character resembled so closely those of rheumatic carditis that they argue for the view that rheumatic lesions themselves may be a manifestation of a hypersensitivity of anaphylactic type. Very recently, the same authors[12] have presented evidence to show that the peculiar lesion of rheumatic pneumonitis is basically identical histologically with pneumonitis caused by sulfonamide hypersensitivity.

Another argument for the allergic hypothesis has been the fact that a high percentage of positive skin reactions to products of streptococci have been demonstrated in rheumatic fever patients. However, Gibson, *et al*,[7] skin-tested a group of 266 rheumatic children and 264 control patients of comparable age and similar environment with other diseases. The percentage of positive skin reactions in these two groups was practically identical. Other experiments on streptococcal antibodies of circulating type carried out by Wilson and her associates[20] have not demonstrated any appreciable difference in antibody formation or titer in rheumatic as compared with non-rheumatic individuals.

3. *Beta Hemolytic Streptococcus as a Specific Agent.*—The observation has often been made that rheumatic fever patients have pharyngitis at or near the onset of the disease or its recurrence. Coburn has presented extensive evidence showing the close relationship between infection with beta hemolytic streptococci and the development of a rheumatic episode usually two to three weeks later. That the beta streptococcus is somehow concerned in the rheumatic process is indicated by the presence in the blood of such patients of strikingly increased amounts of specific streptococcal antibodies — antihemolysins, agglutinins, complement - fixing antibodies, precipitins, and antifibrinolysin. An elaborate study along these lines made by Coburn[3] in 1936 showed, by means of repeated estimations of antihemolysins and other antibodies at intervals after the attack, that, whereas in the non-rheumatic subject production of antibodies was rapid, in the rheumatic subject the concentration rose slowly and steadily and persisted for a long period of time, in some instances as long as six months. He concludes from this that rheumatic fever represents an abnormal type of antibody response to streptococcal infection. An alternative explanation might be that streptococci are lurking somewhere in the tissues and continuing to act antigenically.

Extensive studies on the role of the hemolytic streptococcus have also been carried out by Green.[8] These include confirmation of the high hemolysin titre in rheumatic subjects, the demonstration of frequent skin sensitiveness to streptococcal endotoxin, and the observation that when hemolytic streptococci are found in the throats of quiescent rheumatic patients they are much more often of group A (87 per cent) than in miscellaneous non-rheumatic streptococcus carriers (42 per cent). But Green's most striking observations were made by cultivating affected tissues postmortem, the heart being approached with a strict aseptic technique impossible during ordinary postmortem examinations. In 8 out of 9 rheumatic cases, beta hemolytic streptococci were cultured from the heart valves or pericardium, and in no case from the heart's blood. Among 22 control cases 2 gave growth of streptococci from the valves, but in both of these the organisms were also in the blood, and the causes of death, peritonitis and bronchopneumonia, respectively, might easily have given rise to a terminal septicemia. In 5 of the rheumatic cases, streptococci had been cultivated from the throat during life and in each of these, the Griffith type of the throat and postmortem streptococcus was the same. Two other British workers have pursued this form of study with similar results.

Mote and Jones[10] in an extensive immunological study, found an increase in titre of some type of hemolytic streptococcal antibody in over 90 per cent of their cases of rheumatic fever, which numbered several hundred. No significant differences were detected between the non-rheumatic and the rheumatic individual in the pattern of antibody response to hemolytic streptococcal infection or rheumatic fever attack. These authors conclude that there is a close association between rheumatic fever and hemolytic streptococcal infection but that the streptococcus would not seem to be the only important factor relative to the causation of rheumatic fever.

4. *The Virus Hypothesis.*—Several groups of workers have suspected that a virus might be the cause of rheumatic fever. Schlesinger and co-workers[14] have demonstrated particles resembling elementary bodies in sediments obtained by high speed centrifugation of pericardial fluid and other rheumatic exudates. These particles were sometimes agglutinated by the serum of the rheumatic individual. Although many experiments have

been carried out using serial passage through mice, cultivation upon chorio-allantoic membrane of the chick and other accepted virus techniques, no direct correlation between virus strains or antibodies to them and rheumatic fever has been conclusively demonstrated. Wilson has been unsuccessful in her attempt to transmit the disease to chimpanzees by parenteral administration of fresh rheumatic exudates and suspensions of fresh rheumatic tissues obtained at autopsy. However, much more work along these lines is needed.

5. *Vitamin C Deficiency.*—Rinehart and Mettier[13] were the first to suggest that vitamin C deficiency might be concerned in the production of the rheumatic lesion. These investigators claimed to have reproduced the equivalent of rheumatic fever in guinea pigs by a diet deficient in vitamin C, particularly when focal streptococcal infection was combined with this treatment. The metabolism of vitamin C in rheumatic fever patients has since been studied by many workers and there seems to be general agreement that there is a decided alteration in the metabolism of this substance in rheumatic fever patients. However, this is most easily explained on the basis of increased vitamin C need as the result of infection rather than indicating etiologic or predisposing significance. An increased need for vitamin C probably does exist in rheumatic fever patients just as it exists in tuberculosis and other chronic diseases, and there is no proof that deficiency of this vitamin *per se* is more harmful in rheumatic fever than in other infectious processes.

In conclusion, it seems to us that while much more work is needed along the lines indicated above, the evidence seems incontrovertible that the hemolytic streptococcus is intimately associated with the initiation of the rheumatic process in some way. Whether the organism actually invades tissue, setting up a peculiar sort of inflammatory process, or merely exists locally in the body and produces its systemic effects on an allergic basis or merely produces an initial infection which lowers the body resistance to the point where another agent can enter the tissues is still unknown. Some idea of the importance of the hemolytic streptococcus can also be obtained from the fact that sulfanilamide has been found extraordinarily effective in preventing rheumatic recurrences. This work will be referred to in detail later.

DIAGNOSIS

The clinical picture of rheumatic fever is so variable that real difficulties are often encountered in making a diagnosis. Few have difficulty in recognizing the typical textbook picture of rheumatic fever, with fever, marked prostration, acute painful migratory arthritis and typical cardiac findings. However, it has been our experience as well as that of many other workers in the field that more often than not, children do not exhibit this typical picture. The joint manifestations frequently are so fleeting as to escape notice entirely, and several cases which have come under our observation have had no peripheral manifestations or symptoms whatever. In a series of 76 cases of acute rheumatic fever observed at the Children's Medical Center in the last two and one-half years, only 37 children exhibited the typical picture of migratory polyarthritis, plus carditis. Fourteen patients showed typical active myocarditis unassociated with any other symptoms or signs. Thirteen patients had chorea plus typical rheumatic carditis and seven had chorea alone. Only 5 patients exhibited typical migratory polyarthritis plus an elevated erythrocyte sedimentation rate in the absence of carditis. It will be seen that only 12 out of 76 escaped cardiac damage in the pediatric age period, confirming Clifford Allbutt's classical remark that "rheumatic fever licks the joints but bites the heart." Unfortunately, there is no test or group of tests which will make an unequivocal diagnosis of rheumatic fever. However, we have found a combination of the erythrocyte sedimentation rate and the streptococcal antifibrinolysin test of Tillet and Garner[18] a useful adjunct in the recognition of this disease. The erythrocyte sedimentation rate is usually markedly and persistently elevated for relatively long periods of time, weeks or even months. The test is known to be quite nonspecific, being elevated not only in rheumatic fever but in many other chronic infections such as tuberculosis and glomerulonephritis. Its greatest usefulness, therefore, is in following the course of the rheumatic infection rather than in diagnosing it. The streptococcal antifibrinolysin test is of an entirely different nature. This test demonstrates the presence of one of the antibodies to the hemolytic streptococcus, and is thought by most workers to indicate a fairly specific response to previous streptococcal infection. In the hands of most investigators, this test has been strongly and repeatedly positive in 75 per cent to 85 per cent of rheumatic fever patients. Boisvert[1] has had extensive experience with this procedure and has shown that a series of fibrinolysin determinations on the same patient is more significant than one individual test. By means of such serial studies he has been able to delineate certain trends which the test may show in various clinical conditions. In most non-streptococcal

infections the test remains negative throughout the illness (trend A). However, certain patients may show a transitorily positive test during the early stages of an acute infection which rapidly becomes negative in a week or two (trend B). This is probably due not to actual streptococcal antibody but to the absence of a non-specific factor, known as the lytic factor of Milstone, which is necessary for the reaction to take place. Absence of lytic factor is also the explanation for the positive tests which one sometimes obtains upon well newborn infants. In known streptococcal infections such as scarlet fever, the test is usually negative during the early stages of the illness but becomes positive in about 75 per cent of all cases during the second or third week of convalescence, and remains positive for a variable period of time, usually several weeks (trend C). In rheumatic fever and acute nephritis, on the other hand, the test is usually strongly positive when the patient first exhibits clinical manifestations and remains strongly positive for many weeks or months (trend D). In non-streptococcal disease the test is occasionally transitorily positive in the early phases of the illness and rapidly returns to a negative phase, only to become positive again when a hemolytic streptoccocal complication supervenes (trend E). Finally, Boisvert has observed transitory positive peaks in a case of Streptococcus viridans septicemia, the positive tests corresponding with the appearance of showers of organisms into the blood stream (trend F). These trends are graphically illustrated in the accompanying chart, which shows the results obtained on 25 rheumatic patients and 62 non-rheumatic controls at the Children's Hospital.

It will be seen that persistently positive tests were obtained only in known streptococcal disease, acute nephritis, and rheumatic fever. It is obvious that the test is not diagnostic of rheumatic infection but when considered in relation to the clinical picture, sedimentation rate, blood count, and other pertinent data, it constitutes a useful adjunct in the diagnosis of rheumatic fever. Furthermore, we believe that this and similar tests may be of value from an investigative standpoint, since it is obvious that if these tests can be shown to be specific for streptococcal infection, the finding of many positive tests in rheumatic fever points strongly to an association between these organisms and the rheumatic state. It is desirable that more work along these lines be carried out, particularly in geographic areas such as this, where the hemolytic streptococcus carrier rate is known to be lower than in the Northeastern states, where most of the previous work has been done.

TRENDS OF ANTIFIBRINOLYSIN TESTS AND CONDITIONS UNDER WHICH THEY WERE OBSERVED.

Conditions Studied. 4+ / —	A	B	C	D	E	F
Normals.	8					
Beta-hemolytic, Streptococcal Disease. Proved by culture.	1		6	2		
Rheumatic Fever and Chorea.	5	2	2	14	2	
Acute Nephritis.	1		1	8	1	
Non-Streptococcal disease.	24	8	1		1	

PROPHYLAXIS

Swift and others have shown quite conclusively that the sulfonamide drugs have no curative action in active rheumatic fever; indeed, in many instances, the administration of sulfonamides to such patients has resulted in deleterious effects. Some mild active cases showed marked aggravation of symptoms when so treated; others manifested serious toxic effects from the drug. Within the last five years, however, several encouraging reports have appeared in the literature concerning the prevention of rheumatic

recurrences by the use of sulfonamide drugs, particularly sulfanilamide. The general plan of prophylaxis used by most workers is to administer from 1 to 3 grams of sulfanilamide per day, the object being to maintain a blood level of approximately 2 mg. per 100 cc. In the earlier studies the drug was given daily throughout the fall, winter and spring months only, but because some patients have relapsed during the summer when not taking medication, it now seems wiser to administer the drug throughout the year. Coburn and Moore[4] observed a series of 100 cases treated in this fashion during the years 1936 to 1939, and during this three-year period none of their patients suffered rheumatic reactivation. In 1939, the drug was discontinued and in the ensuing year, 32 patients suffered streptococcal infections; of these, 40 per cent developed definite rheumatic relapses. Thomas[17] followed a series of 55 treated cases over a period of two years and found in this group an incidence of only 5.1 per cent positive throat cultures for the hemolytic streptococcus and no rheumatic recrudescences. In a control series of 76 cases, positive throat cultures were obtained in 14 per cent of cases and 15 patients developed rheumatic relapses. Many of her patients have taken the drug continuously for a period well over three years, and one patient took it daily for six years without any deleterious effects. Her plan is to start the drug before the patient leaves the hospital after signs of activity have disappeared and when the sedimentation rate is falling. Many other workers have recorded similar results. To date, approximately 648 person-seasons have been reported in the literature, and in this large group, only 6 recurrences of rheumatic fever have been observed. This constitutes less than 1 per cent of the cases and is strikingly lower than the expected 10 to 20 per cent relapse incidence which would be in the neighborhood of 65 to 130 cases.

Stowell and Button[15] report the only death observed during this type of treatment. This accident occurred in a patient who developed a sore throat while on a sulfonamide prophylaxis regime and was treated by an outside physician with more sulfonamide. The patient developed fatal agranulocytosis. Aside from this fatality, most investigators report that reactions to the drug are mild and in many instances transitory. Symptoms consist mainly of slight drops in hemoglobin and white count, slight initial weight loss and initial anorexia. The workers who use the lower dosages of drug, in the neighborhood of 1 to 1.5 grams a day, report fewer of these toxic reactions than those who use the larger doses and the therapeutic results appear to be equally effective.

TREATMENT

It seems to be the general consensus of opinion that no specific cure for active rheumatic fever is known today. Therapeutic efforts are directed mainly toward supportive measures, complete bed rest to minimize cardiac work, adequate dietary intake, *et cetera.* Salicylates are used extensively to combat the exudative manifestations of the disease, such as arthritis and pericarditis, and there can be no question that for the relief of acute rheumatic arthritis this drug is still unsurpassed. However, most workers believe that it is only the exudative phenomena which are benefited by salicylates, whereas the proliferative changes, such as occur in the heart, proceed unchecked. From time to time, hints have appeared in the literature to the effect that salicylates have a more profound effect on the disease than that which we have indicated above. For example, Lichty records the observation that seven patients treated with salicylates showed relatively rapid fall of their sedimentation rates to normal values, only to rise sharply again when the salicylates were discontinued. Very recently, Coburn[5] has published a most interesting study of massive salicylate therapy of rheumatic fever in young adults. His work appears to show that there is a quantitative relationship between the plasma salicylate level and rheumatic activity. Twenty patients maintained at a plasma salicylate level of 359 to 490 micrograms per cc. manifested a prompt and progressive subsidence of rheumatic inflammation, while 20 other patients with plasma levels below 250 micrograms per cc. continued to manifest an active inflammatory process. The maintenance of such levels requires the administration of from 10 to 20 grams of sodium salicylate per day, often by the intravenous route. On a weight basis, this amounts to from 130 to 190 mg. of drug per kilogram. The results of two years' experience with this technique showed that none of 38 rheumatic patients so treated developed valvular heart disease, while 21 of 63 patients in similar cases who received only a small dose of sodium salicylate developed physical signs of heart disease.

ABSTRACT OF DISCUSSION

Dr. John G. Young, Dallas: Dr. Fashena has given us a most excellent paper—one that is needed and that points out to us a problem that we meet very frequently, although I believe we sometimes miss it. She has told us that when you carefully search, you usually find. In the Children's Hospital of Texas, rheumatic fever and its effects is about the chief cause of death. I believe we have overlooked many of these cases before.

Dr. Fashena reviewed the various theories of

etiology, and to me the allergic hypothesis looks interesting and seems somewhat plausible. It is of interest to note that the location of the lesions are determined by physiological trauma, stress or constant movement, and since Rich and Gregory's recent work the theory is broadened even to include the pneumonitis frequently seen in rheumatic infections. To me, this theory is not inconsistent with the theory of beta-hemolytic streptococcus as a specific agent, and these two may together be used to explain the disease. Remembering that the episodes of rheumatic fever are usually preceded two or three weeks by infection with the beta-hemolytic streptococcus infection. The products of this organism found in the blood cannot be discounted and in rheumatic fever they arise slowly. This is not inconsistent with an abnormal type of response to the organism in the role of, perhaps, an antigen.

The effect of sulfanilamide in preventing recurrences aids this belief. As Dr. Fashena has intimated, the etiologic process may be the streptococcus plus X and maybe also plus Y, two unknowns.

The series of cases constituting this study show that only one-half gave a typical picture of migratory polyarthritis and carditis, and only 12 escaped carditis in the pediatric age.

The sedimentation rate and the anti-fibrinolysin test have been extremely useful at the Children's Hospital, being of perhaps more value than in following the course of the disease in single determinations. Repeated on the same patient they oftentimes give valuable information.

I think the two greatest contributions in the management of these patients has been the use of sulfanilamide and the recent work with salicylates. Both of these offer a ray of hope that previously did not exist.

Dr. J. L. Spivey, Fort Worth: I wish to congratulate Dr. Fashena for her excellent paper. It certainly has given us a new perspective on rheumatic fever. I should like to ask Dr. Fashena concerning the incidence of chorea in her series of patients. I should also like to ask concerning the criteria of carditis and its prognosis.

Dr. Don W. Freeman, Denison, Texas: I was particularly interested in this excellent paper by Dr. Fashena. I saw a great amount of rheumatic fever during my internship, and I thought I knew how to recognize it, but I have apparently not been as keen in picking it up here in Texas as the author and her associates have been. The few cases I have seen have been predominantly in the form of chorea. I should like to ask about the method of doing sedimentation rates, whether heparin or oxylate was used, and whether correction is made for the hematocrit reading? Also, in the matter of sulfonamide prophylaxis, how long is this continued?

Dr. J. P. Gibson, Abilene: I should like to ask Dr. Fashena if she has found it necessary to examine the blood and urine for longer than two weeks in those who were given the sulfonamides for a prolonged period? And whether it is her impression that rheumatic fever occurs just as often in the southern as in the northern part of the United States but is probably less severe in the south.

Dr. S. Edward Sulkin, Dallas: In the discussion of the etiology of rheumatic fever, the essayist referred to the filtrable virus theory proposed by a group of British investigators (Schlesinger, *et al.*). Is it not true that evidence along this line is very meager? The demonstration by these workers of the agglutination of "elementary bodies" obtained from exudates of rheumatic fever patients and serum from such cases probably constitutes the first significant laboratory evidence of the possible virus etiology of this disease. Later, another group of British workers (Eagles, *et al.*) demonstrated the infectivity for monkeys of virus-like bodies in suspensions from a variety of rheumatic materials. The results were inconclusive when the elementary bodies were injected alone or in combination with streptococci and streptococcal toxins.

The filtrable pleuropneumonia-like microörganisms isolated by Sabin from mice produced an infection in these animals which resembled rheumatic fever and rheumatoid arthritis in man. Dr. Sabin, however, was unable to demonstrate these organisms in exudates from patients with rheumatic fever.

To be sure, evidence implicating the hemolytic streptococcus is extremely convincing. Many workers who support other theories suggest that perhaps more than one agent may be the underlying mechanism responsible for this disease. The etiology of rheumatic fever may be a complete one with both a microörganism (hemolytic streptococcus) and a filtrable virus acting in concert, similar to the synergistic relationship between H. influenzae suis and swine influenza virus, which was discovered by Shope to be the cause of swine influenza.

Dr. Fashena (closing): In answer to Dr. Spivey's question, 20 of our 76 patients exhibited chorea. Of these, 13 had chorea plus carditis and 7 had chorea alone. The Westergren sedimentation technique has been used throughout this study. An isotonic mixture of potassium and ammonium oxalates serves as the anticoagulant and the tests are set up immediately after collection of the blood. No correction has been made for hematocrit reading but anemia is taken into consideration in interpreting results. No one yet knows how long sulfonamide prophylaxis must be continued but the suggestion of most workers has been that the drug be given until puberty. We prefer to examine blood and urine at frequent intervals for four weeks after starting sulfonamide prophylaxis and then at monthly intervals thereafter. As to the comparative incidence of rheumatic fever in the northern and southern parts of the United States, it has been our impression that the disease here is almost as common as it is in the North, and very nearly as severe. Carditis certainly occurs with very great frequency.

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MEDICAL MANAGEMENT OF COMMON ESOPHAGEAL DISORDERS

CECIL O. PATTERSON, M. D.
MILFORD O. ROUSE, M. D.
CAPT. JOHN S. BAGWELL, M. C., A. U. S.
DALLAS, TEXAS

Difficulties in swallowing, weight loss, nausea, vomiting, anemia, low grade fever, unexplained cough, or hoarseness, and neck, chest, shoulder or upper abdominal discomfort have been the most persistent complaints of our patients having esophageal disorders. Such symptoms justify careful history, physical examination, and laboratory studies. The esophageal disorder lends itself well to correct identification by x-ray study. Direct inspection, or biopsy, through the esophagoscope offers further assurance of a correct diagnosis. The following case reports illustrate the common esophageal disorders and their treatment.

OBSTRUCTING NEOPLASMS OF THE ESOPHAGUS

CASE 1.—D. P., a white man, age 65, came in April, 1942, with a recent biopsy report of "benign angioma, obstructing the middle third of the esophagus." He gained 10 pounds following his first dilatation. In August, 1942, the roentgenogram (Fig. 1) and gross appearance was that of malignancy. To esophagoscopy a constriction was encountered in his mid-esophagus with smooth mucosa except for one ulcerating mass on the left anterior wall. Biopsy showed "angiomatous tissue; no malignancy." Fifty mg. radium was placed in the stricture for twelve hours. The weight was 130 pounds. The esophagus has been dilated at two to four months intervals during the past two years; the weight has been maintained; and the patient has continued actively in business. He has normal color of skin, a good appetite, is quite alert mentally and physically. Now, two years three months since esophageal neoplasm was diagnosed, he is for practical purposes very well indeed for one of his 67 years.

CASE 2.—G. R. L., a white man, age 52, had intermittent pain on swallowing, referred to the base of the tongue, beginning November, 1942. Esophagoscopic biopsy, April 27, 1943, disclosed "epidermoid carcinoma of the esophagus, grade 3," obstructing the esophagus at the superior aperture. A fifty mg. radium capsule was left in place for twelve hours. Then he was given a course of deep x-ray therapy by Dr. Charles L. Martin, at Gaston Hospital, Dallas, Texas. The esophagus was dilated in November, 1943. Now, seventeen months since he first consulted a doctor about his swallowing pain, he is working regularly as a shipping clerk, is maintaining his weight of 140 pounds; and to physical examination, x-ray study and esophagoscopy there is no evidence of malignancy.

CASE 3.—Mrs. G. L., age 48, came February 7, 1941, weighing 72 pounds after fourteen months dysphagia. X-ray investigation disclosed obstruction in the mid-esophagus. Biopsy showed "adenocarcinoma of the esophagus, grade 2." The esophagus was dilated, and a radium capsule (60 mg.) was placed in the stricture for twelve hours. (Radium dosage prescribed by Dr. Davis Spangler.) Deep x-ray therapy was then done. Dilatations and radium capsule therapy were carried out in January and November of 1942. She continued ambulatory about the farm home and gained 30 pounds, which except for slight losses was maintained. Massive hematemesis and sudden demise occurred March 8, 1943, three years and three months after the onset of obstruction to swallowing.

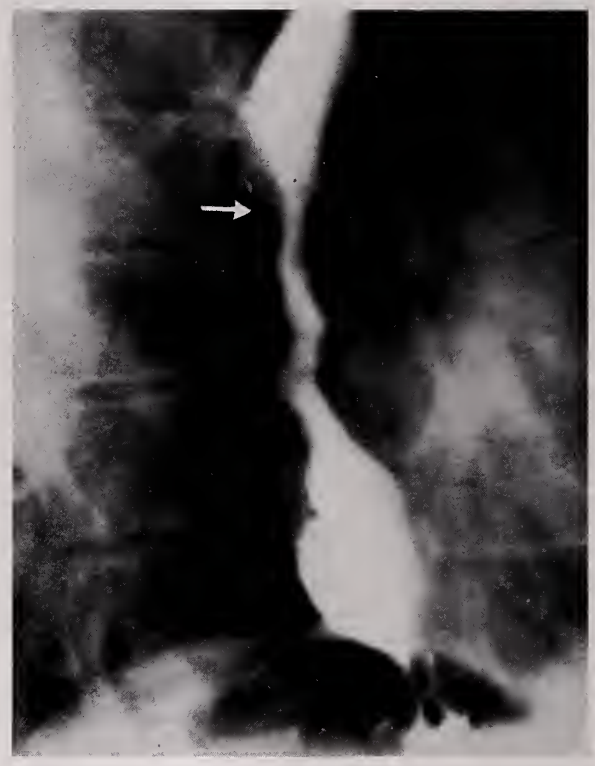

FIG. 1. (Case 1.) Roentgenogram, in the case of a white man, age 65, showing obstructing esophageal neoplasm (at arrow point). The patient regained weight and continued regular employment after radiotherapy. The stricture has been dilated at two to four months intervals for the past two and one-half years.

Of our 32 patients having esophageal neoplasm, 10 are known to be living; 7 have lived a year or longer after the diagnosis was made; 4 are continuing in useful employment, 1 at one year, 1 at eighteen months, 1 at two years three months, and 1 at seven years since the onset of painful obstruction to swallowing.

From the Department of Gastro-enterology, Southwestern Medical College, Dallas, Texas. Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 20, 1944.

ACUTE ESOPHAGITIS WITH OBSTRUCTION

CASE 3.—E. E. W., a white man, age 43, came in May, 1942, complaining of three months dysphagia since an indwelling suction tube was used as postoperative treatment for perforated ulcer. Recently he had become unable to swallow even water and had lost weight from 147 to 126 pounds. X-ray study revealed a smooth narrowing of the lower 10 cm. of the esophagus with obstruction at the cardia (Fig. 2). To esophagoscopy the mucosa, pale gray fibrous in appearance, permitted the passing of the scope into the stomach with only moderate resistance. Therapeutic dilatation of the constricted lower one-third was done then, and again two months later. Question of obstructing carcinoma." To esophagoscopy, a 5 cm. pouch just above the cardia to the patient's right was packed with food. The food was picked out and no evidence of malignancy was seen in the lower esophagus. Obstruction was relieved by dilating the esophagus at the neck of the sac where often spasm gives the same type of obstruction as a cardiospasm. (A later roentgenogram is shown in Fig. 4). Now, after three years, his weight is 185 pounds, and there has been no appreciable return of dysphagia.

Diverticula in the upper third of the esophagus or hypopharynx are better situated

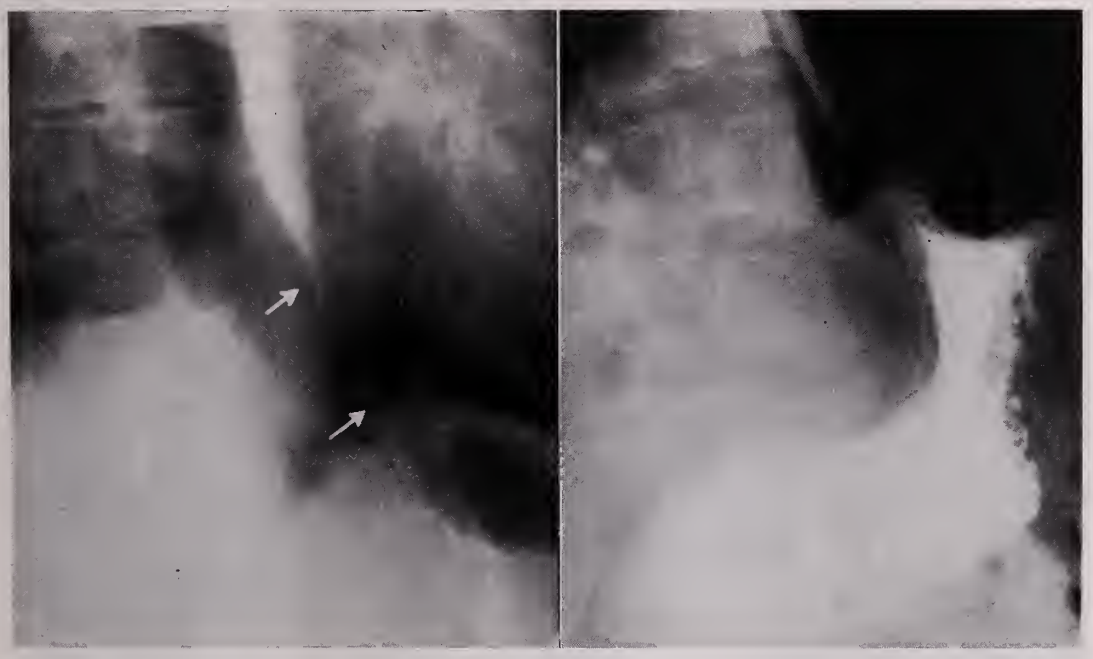

FIG. 2. (Case 3.) Semi-lateral roentgen views of the lower esophagus and stomach, showing only a streak of barium through the strictured lower third of the esophagus, in the case of a white man, age 43. The stricture developed subsequent to a postoperative indwelling tube. The patient gained 34 pounds in weight after treatment of the esophageal stricture by dilations.

Biopsy showed "stratified squamous epithelium beneath which is round cell and leukocytic infiltration —no tumor cells." The diagnosis was "chronic inflammatory tissue of the esophagus." In six months he gained 34 pounds and now, two years later, he is symptom free on ulcer management.

CHRONIC ESOPHAGITIS WITH PEPTIC ULCER OF THE ESOPHAGUS

CASE 4.—C. C. H., a white man, age 62, referred to us in April, 1938, had three days obstruction to swallowing even water; an English pea removed from the lower third of the esophagus had produced ballvalve obstruction. An irregular stricture was dilated to 32 French. By x-ray study his esophagus presented an ulcer crater and multiple strictures in the lower 5 cm. (Fig. 3). Now, six years later, with dilatations his weight is 20 pounds more than at the beginning. He has dysphagia recurrently in the spring, probably the result of esophageal peptic ulcer.

ESOPHAGEAL DIVERTICULA

CASE 5.—W. E. D., a white man, age 47, came in March, 1941, "unable to swallow water," for three days. For ten years he had been "spitting up food undigested." Barium study had disclosed a "Point of obstruction about one inch above the diaphragm. for surgical removal (Small and Barr). Those adjacent to the diaphragm are to be differentiated from diaphragmatic hernia, malignancy of the esophagus, cardiospasm and congenitally short esophagus (Bockus).

CARDIOSPASM

CASE 6.—S. J., a white man, age 78, came in April, 1943, having lost 20 pounds recently; he had had difficulty in swallowing for many years. His esophagus to x-ray examination was 15 cm. in diameter. The patient commented he had "two stomachs—one in my chest." He was dehydrated, emaciated, had fever, and signs of multiple vitamin deficiency. The esophagoscope showed no malignancy of the esophagus; it was introduced into the stomach, and an Einhorn bag passed through the scope into the stomach. The dilated bag (Fig. 5) was then carefully worked back through the constricted cardia, producing a dilatation from below, a technique which seems to give better results in these most far advanced cases of cardiospasm. A biopsy taken from suspicious tissue in the stomach revealed "small gastric glands lined by both chief and parietal epithelium, no anaplasia of cells." This patient's subsequent course has verified the diagnosis, which for many years has been that of a chronic cardiospasm

with marked dilatation and sacculation of the esophagus.

Cardiospasm early may produce great discomfort under the sternum. In the older patients there is rightfully suspicion of coronary disease (Swalm and Morrison). Usually when the patient seeks medical advice the esophagus has dilated 3 to 5 cm. The age range in our patients having cardiospasm was 13 years to 84 years. Treatment as described gave palliative relief in even the far advanced condition. Response to dilatation with the Mosher bag over a string from above was most gratifying in the early cases.

NERVOUS DYSPHAGIA

CASE 7.—W. E. W., age 79, was referred to us January 19, 1943. He complained of ten years recurring dysphagia, cough, hoarseness, 15 pounds weight loss in recent months, and inability to swallow liquids.

X-ray study revealed quite dilated pharyngeal pouches, which retained the barium. There was spilling into the trachea, producing cough. He was unable to swallow a capsule on repeated efforts.

Esophagoscopy disclosed no evidence of malignancy. The superior constrictor of the esophagus was dilated therapeutically. Swallowing difficulty was relieved; he has gained 10 pounds in the subsequent year.

Nervous dysphagia may become apparent after a suspected foreign body or a scratch in the throat. It may be a part of a systemic functional disorder, associated with weight loss and anemia in the middle aged or elderly patient. In the elderly patient, as described in Case 7, there is poor initiation of the swallowing reflex due to loss of sensory end organs of the pharynx. The superior constrictor of the esophagus fails to relax, and as in cardiospasm the structures above the tight stricture become atonic and dilated. The pharyngeal pouches are large and saccular, and retain food and fluid. The patient may chew carefully and make every effort to swallow, but only a small amount enters the esophagus. There is progressive weight loss, anemia, weakness and deficiency syndromes. Dilatation of the spastic superior sphincter gives most relief. Other measures such as iron or transfusions may be necessary.

ESOPHAGEAL VARICES

Esophageal varices most commonly occur as a complication of portal obstruction, as in hepatic cirrhosis and in Banti's syndrome. We have injected esophageal varices of three patients, with no perceptible untoward effects.

FIG. 3. (Case 4.) Postero-anterior and semi-lateral roentgen views showing irregular stricture, the result of a peptic ulcer in the lower esophagus. The diagnosis was verified by biopsy, weight recovery and six years' observation.

CASE 8.—R. M., a white man, age 53, had had cirrhosis with ascites for two years. With the best of medical care he had survived repeated blood pressure drops and shock from hemorrhage, occurring each time his erythrocyte count got up to slightly above 2,000,000, at four to six weeks' intervals. For four months following injection of his esophageal varices, he has had no recognizable hemorrhage. His blood count is above 3,000,000, hemoglobin above 60, and he is able to be out of bed for the first time in many months.

CASE 9.—D. T., a white boy, 3 years of age, with splenomegaly and repeated hematemesis, improved

following splenectomy but then had recurrence of hematemesis. A large esophageal varix was injected and there has been no further report of hemorrhage to date. Injection treatment using sodium morrhuate has been done sufficiently and for longer times by others (Moersch), assuring us of its practicability.

FOREIGN BODIES

If foreign bodies produce obstruction to swallowing or persistent sticking pain on swallowing they should be removed within a few hours to prevent complications such as esophageal perforation and mediastinitis. Barium study may help to locate the obstructing object, but if the fluoroscopic study or roentgenogram shows no evidence of a foreign body and still there is the sticking pain on swallowing, esophagoscopy is required. Objects we have removed most commonly are bones, such as of fish or fowl, various types of pins, the large lapel campaign button, coins, and similar objects.

LYE STRICTURES

In our present enlightenment such unfortunate conditions should not exist but nevertheless they still occur. Usually the child, just large enough to toddle about, picks up a small container of lye or lye water so commonly used in cleansing floors and other parts of the household. With only a few drops swallowed his little esophagus sustains such critical burns that if he survives he later has multiple strictures. With the cooperation of intelligent parents in providing nourishing foods that can be swallowed through the partially obstructed esophagus such a child can grow to normal adulthood.

Dilatations are required and should be repeated each time before the obstruction has reached the point to result in malnutrition. After the first months, dilatation with longer intervals between will keep the esophagus adequately open. One such patient, J. H., a white man, age 39, treated first by our preceptor, Dr. H. G. Walcott, and later by us, has had dilatation periodically for thirty-two years since he swallowed lye at the age of 7. He is five feet, ten and one-half inches in height and averages 160 pounds.

CONGENITAL ANOMALIES

Bradford, in a recent paper on the esophageo-tracheal fistulae, emphasizes that as soon as the condition is suspected the head and shoulders of the new born infant with this condition should be lowered to prevent aspiration of mucus or milk into the lungs. The infant should then be considered for surgical correction of the anomaly.

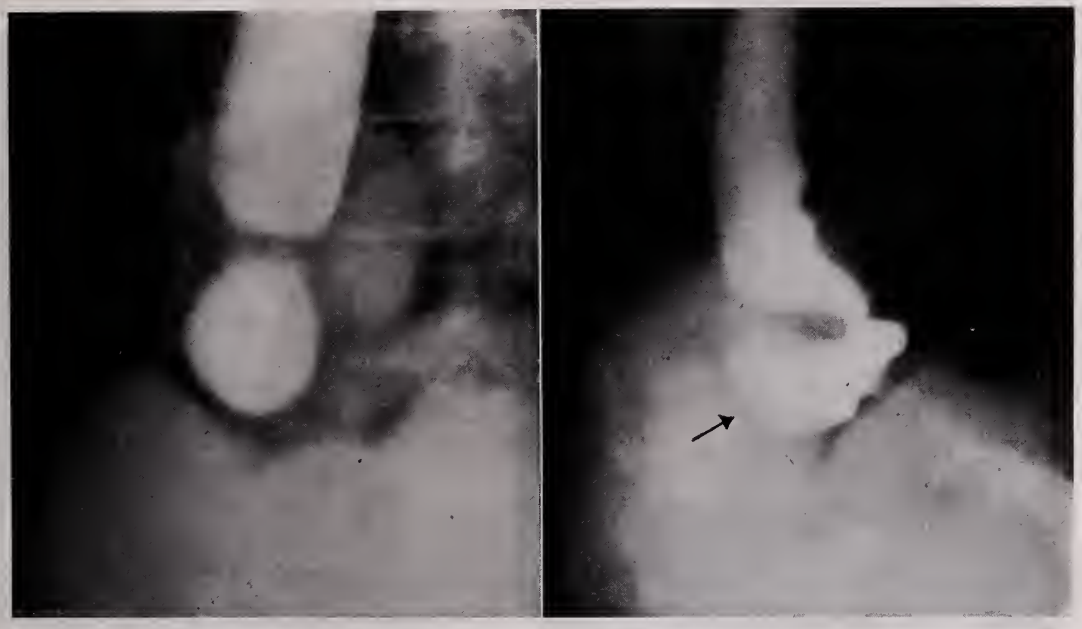

FIG. 4. (Case 5.) Postero-anterior and semi-lateral views of a large esophageal diverticulum. Obstruction to swallowing was relieved by removing through the esophagoscope a large quantity of dry, packed food and dilating the cardia.

CONGENITAL STENOSIS

CASE 10.—J. P. came January 7, 1942, at the age of 12, with the history of being unable to swallow water intermittently for two weeks. There had been a loss of 17 pounds in the past month. Difficulty in swallowing was first noted six years before, after scarlet fever. Febrile diseases, such as typhoid, have been known to ulcerate the esophagus, involving aberrant glands similar to Peyer's patches, and later result in obstruction in the esophagus. This may be the instance in this situation. This boy's esophageal obstruction, however, to esophagoscopy was so smooth, with only a millimeter size lumen, with perfect placement in the center and with normal contour of the esophagus, that one would suspect it to have been a congenital obstruction located in the mid-portion near the bifurcation of the trachea

where such similar diaphragm-like obstructions have been reported (Abel). Dilatation relieved quickly, and in the succeeding two years he has gained from 67 to 125 pounds.

CONTRAINDICATIONS TO ESOPHAGOSCOPY

Of most concern are aortic aneurysm, marked kyphoscoliosis, severe necrosis of the esophagus from escharotics, ruptured esophagus from foreign body or malignancy with mediastinitis and the patient in extremis, severe hypertensive states or cardiac embarrassment. One 11-month-old baby died following a second dilation for lye stricture. A man, age 30, was refused esophagoscopy because he was in a moribund state when brought to the out-patient department. He apparently had mediastinitis subsequent to one, two or three years of useful activity.

Medical treatment of the benign esophageal disorder is most satisfactory to both the patient and his physician, and the patient is restored to normal activity for a normal life expectancy.

We are indebted to Professor Lewis Waters and Mrs. Ruth Sanders of the Medical Art Department of Southwestern Medical College for preparation of the illustrations here presented, and to the physicians who most kindly coöperated with us in the care of the patients.

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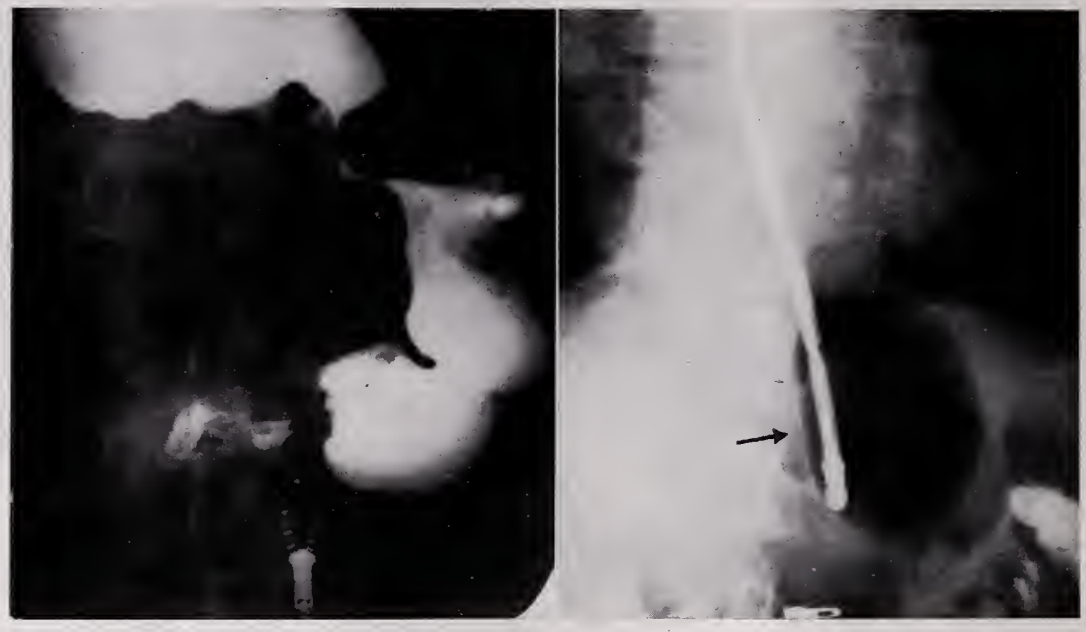

FIG. 5. (Case 6.) (Left.) Roentgenogram showing a large lower esophagus and the elongated stenosed cardia of chronic cardiospasm, observed in a white man, age 78.
(Right.) Roentgenogram showing the dilating bag (at the arrow point) distended in the stomach ready to be withdrawn and thus dilate the cardia.

the swallowing of a foreign body two weeks before. He expired a few hours later. A 38-year-old white man, with sudden onset of painful obstruction to swallowing, received the diagnosis of aortic aneurysm by fluoroscopic examination. He had recurring massive hematemesis and expired eighteen hours later.

Finally, the challenge to us as diagnosticians is that an early correct diagnosis of malignancy of the esophagus may offer the opportunity for surgical eradication, especially if in the lower third.

Medical management of obstructing tumors in the esophagus, with the gastro-enterologist cooperating with the radiologist, may prolong the life and usefulness of the patient for many months and in selected cases may add

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ABSTRACT OF DISCUSSION

Dr. Merton M. Minter, San Antonio: We are fortunate in Texas in having a group so well qualified to diagnose and treat esophageal disorders as are the essayists. These conditions are relatively rare so that expert care must be centered in the hands of a few men so that their experience can be adequate to render the best possible service to the patients.

It might be well to emphasize that peptic ulcers of the esophagus may stimulate in their symptomatology the conditions arising in the heart producing

substernal pain. Roentgenological investigation in such cases may fail to demonstrate the ulcer and add to possible errors in diagnosis. Peptic ulcers of the esophagus are not usually demonstrable by x-ray until scarring and some obstruction occurs. Esophagoscopic examination in such cases is necessary for absolute diagnosis.

The progress of thoracic surgery promises permanent relief to some of the intractable cases of cardiospasm with dilatation of the esophagus. Dwight Harkin has performed several operations in which he splits the constricted area in the axis of the esophagus and sutures it in the opposite direction, thus creating a pleat which permanently relieves the cardiospastic area. I do not know, but I presume that in doing this operation the diaphragmatic pinchcock muscles surrounding the esophagus are cut, constriction of which Chevalier Jackson believes to be the real cause of the condition; it may well be the latter condition which permanently relieves the patient.

I want to express my appreciation to the essayists for bringing so forcefully to our attention the means of diagnosis and the methods of relief in these important and long-suffering cases.

Dr. J. R. Maxfield, Jr., Dallas: I want to take this opportunity to compliment Drs. Rouse, Patterson and Bagwell for the excellent presentation of this interesting subject. The more widely information of this nature is disseminated among our colleagues, the better chance we will have to give relief to patients suffering from esophageal disorders.

The management of the benign lesions is one which requires the careful attention of the gastro-enterologist and the radiologist. Frequent manipulations, dilatations and radiographic examinations are indicated. The authors of this paper have shown what can be accomplished by coöperation and teamwork. The results accomplished bear the highest credit from our profession and reflect the appreciation of the relieved patient.

The essayists have pointed out the prognosis of the various esophageal conditions. I want to discuss briefly malignant disease of the esophagus. It is well known that primary tumors in the esophagus grow slowly and are locally invasive but tend to remain localized for long periods of time and extend usually to regional lymph nodes late in the course of the disease. It is with this point in mind that encouragement be given patients with malignant disease of the esophagus. If the malignancy can be detected in an early stage before there is extensive localized involvement, the chance of cure can still be offered to these patients. The resection and removal of the involved segment can be accomplished by operative procedures which do not have a prohibitive mortality. It should be strongly recommended to the patient who falls into the operative group, that such a procedure be carried out, since the chance of cure by other means is very small.

The accomplishment of palliation and rehabilitation of the patient with esophageal malignancy, even for a short time, is to be strongly recommended and can be accomplished by the coöperation of the radiologist and the gastro-enterologist. Many of these patients can be returned to work and continue in gainful occupations for several months and occasionally for several years before the fatal termination occurs. An occasional patient will have a long remission following the radiological treatment and may have the possibility of a permanent cure. In accomplishing the palliation to a maximum degree, adequate radiation therapy should be given and after the reaction has subsided the patient should have frequent esophagoscopic examinations and dilatations. This is extremely important in view of the fact that scar tissue forms as the tumor cells are destroyed and frequently cause an increasing stenosis in the esophagus. The esophagoscopist can greatly improve the stenosis by frequent dilatations.

Dr. Armstead Crump of the Presbyterian Medical Center in New York City reported one case of carcinoma of the esophagus which was treated after a positive biopsy with intensive radiation therapy. The five-year cure was accomplished in this case. The patient died from accidental injuries and a post-mortem examination revealed no evidence of tumor, although a careful search of the entire esophagus and mediastinal regions was carried out, as well as a general survey of the entire body. He presented this case to encourage adequate treatment of patients with esophageal malignancy. While the five-year cure is a very rare occurrence, it can be said that excellent palliation can be accomplished in most cases.

In addition to the adequate x-ray therapy given to the primary lesion in the esophagus it is frequently necessary to call on the surgeon to perform a gastrostomy through which the patient can be fed during the stage of reaction and during the dilatations of the esophagus. This is a procedure which is many times life saving and will allow these patients to continue in useful occupations for a longer period than is possible without the use of the gastrostomy. It is merely a matter of making available a method of feeding in which the adequate caloric requirements can be taken care of by the easiest possible method.

Time will not permit a more thorough discussion of all the points of treatment of these patients but the high points are covered so that the physician will be in a position to answer questions which the patient may ask before being referred to the specialist for treatment.

The mode of termination of these patients is usually by perforation of the esophagus into a bronchus or into the mediastinum. Occasionally there is invasion of the tumor into a great vessel with massive hemorrhage. When the termination is inevitable, treatment should be aimed at the relief of the patient and supplying of adequate fluids to keep him comfortable. The allaying of the anxiety of the patient is an important point in making his exodus more bearable.

I want to thank again the authors of this excellent presentation, and I hope that through it the beneficial procedures now available can be extended to a greater number of patients.

Dr. H. Walter Cochran, Dallas: Dr. Patterson, who has so clearly shown how effective expert nonoperative management can be in certain disorders of the esophagus, has very kindly asked me to discuss the surgical aspect of esophageal disease. Since the time allotted for discussion is so brief, I should like merely to call the attention of the Section to the fact that recent developments in the technical aspects of thoracic surgery have made exploration of the thorax, in cases of malignant disease of the esophagus, a relatively safe procedure, and that in suitable cases excision of the growth can be carried out with a mortality rate comparable to that of major intra-abdominal procedure. The results which can be achieved by the most expert present-day surgical treatment are best shown in the report of Churchill and Sweet (*Annals of Surgery* 115:879, June, 1942), who did esophagectomy in six cases of carcinoma of the middle one-half of the esophagus, with but one hospital death, and who resected the lower end of the esophagus and cardia of the stomach, for carcinoma, in 11 cases with but one death. Now that the operative treatment of malignant diseases of the esophagus has been made reasonably safe, the important factor in increasing the percentage of cures would seem to be earlier diagnosis and more prompt reference of cases for exploration.

Dr. Patterson (closing): We appreciate very much the most liberal discussions of our paper by

Dr. Minter, Dr. Cochran and Dr. Maxfield. During their discussions, two thoughts came to mind: first, the antispasmodics of special importance and their use, so well known to all of us, should be continued in these esophagus cases. In almost every instance, regardless of whether the etiology is malignancy, or stricture, or what not, there is an element of spasm which is improved by the giving of such drugs as belladonna derivatives.

The other thought of practical importance is that, given a patient with a known lesion in the esophagus, not infrequently small particles of food will close up the opening and make difficulty in swallowing. The use of caroid powder, one-half to one teaspoon in a little water taken after meals or at bedtime, often will digest the mucus and little particles of food out of the esophagus so that the patient is able to take the next meal with all ease.

THE FREE SKIN GRAFT

A Special Technique

EDGAR J. POTH, M. D., PH. D.
GALVESTON, TEXAS

The importance of skin grafting is not only emphasized by the present world war, but it is stressed also by the frequency of burns sustained in daily life, which even invade our homes to produce one of the most serious of injuries, as well as by the urgency of replacing skin necessarily excised as a part of various operations. These facts make it imperative that we do all possible to simplify and popularize procedures designed to effect early replacement of large areas of lost skin.

The following factors must be fulfilled if successful "free" skin grafting is to be accomplished: (1) the recipient bed must be properly prepared; (2) a suitable graft must be obtained and applied, and (3) a meticulous postoperative care must be instituted. Each of these subdivisions will be treated in this presentation.

THE PREPARATION OF THE RECIPIENT BED

How soon should a denuded area be covered with skin? It should be grafted at the earliest possible moment before excessive scar tissue has formed.

A wound resulting from an operative excision of an area of skin too extensive to close, such as frequently results after radical breast amputation for carcinoma, excision of scars, relaxation of contractures, debridement of tissues following extensive injuries, *et cetera,* should be cleanly dissected with a sharp knife, meticulous hemostasis effected, and covered immediately with an appropriate graft.

Ordinary burns do not admit of this immediate treatment. The extent of skin loss cannot be accurately assessed at the time of the injury. If the extent of third degree skin loss could be determined at the time of the injury, this area, if not too extensive, could be excised as soon as the patient's condition warrants and the area grafted immediately. Since this is impossible, it is necessary to wait until the damaged tissue has separated from the granulations, which will have developed, and until it is evident that all the elements of the skin have been destroyed to preclude spontaneous *re-epithelization.* If an area, which has not become grossly infected, has not healed in six to eight weeks, it can, ordinarily, be assumed that a satisfactory spontaneous healing will not occur. Even though the area may subsequently heal, the reformed skin will be thin, atrophic and easily traumatized and will not serve as a satisfactory permanent covering.

When first seen by the surgeon, the granulations have, too frequently, been long subjected to gross infection. They are pale, edematous, and overgrown. Excessive deep scar tissue has developed. In these instances, the infection must be controlled, and the unhealthy granulations and scar tissue excised (Fig. 1). Many tests have been devised to indicate when a surface can be grafted with the best expectation of a "take." Elaborate bacteriological studies on the surface flora are helpful but impractical. *Two simple conditions must be fulfilled before "takes" can be expected to occur satisfactorily. There must not be excessive secretions from the granulating surface and there must be ingrowth of epithelium around the edge of the wound.* If the surrounding epithelium shows no tendency toward ingrowth, a parasitic graft most certainly will not survive on such a surface.

Healthy, well vascularized granulations, without excessive, deep, scar tissue can be grafted directly with expected satisfactory results both immediate and late.

Patients with large granulating wounds tend to develop secondary anemias which must be combated by frequent transfusions with red blood cells. It is not necessary to use whole blood. If the facilities of a blood bank are available and plasma is being stored, the cellular residue, or "brei" is admirably suited to the purpose of treating anemia with a material which is otherwise discarded. There is no therapeutic measure which will improve granulations to the same degree as adequate transfusion with red cells. The state of nutrition of these patients must be watched, and it is imperative that an adequate high vitamin, high protein diet be taken.

THE CUTTING OF SPLIT SKIN GRAFTS AND THEIR APPLICATION

The split skin graft can be used for essentially all the various types of grafts em-

From the Department of Surgery, University of Texas School of Medicine, Galveston, Texas.

Read before the Section on Surgery, State Medical Association of Texas, San Antonio, May 3, 1944.

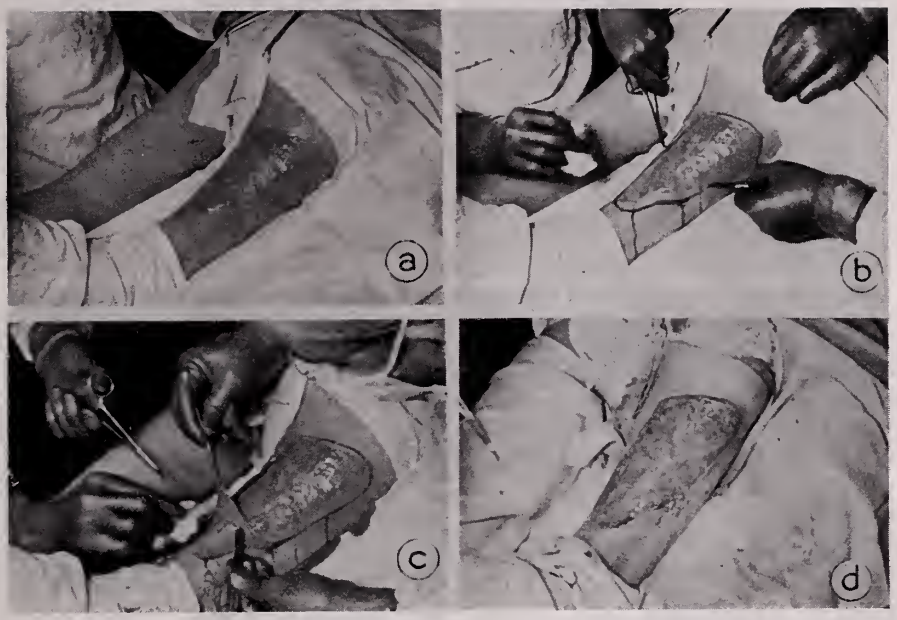

FIG. 1. Showing excision of scar tissue.

a. A granulating surface on posterior aspect of the thigh following a burn sustained nine months previously.

b. An incision is made outlining the area and extending down to the "yellow base."

c. Separation of granulations and scar tissue approximately a quarter of an inch thick. This procedure is readily accomplished by blunt dissection when performed at the correct depth.

d. The scar has been excised down to the vascular "yellow base" and complete hemostasis has been secured using compresses of hot normal salt solution and transfixion sutures of 5-0 plain catgut whenever necessary. This base is smooth, highly vascular, and readily supports a split graft.

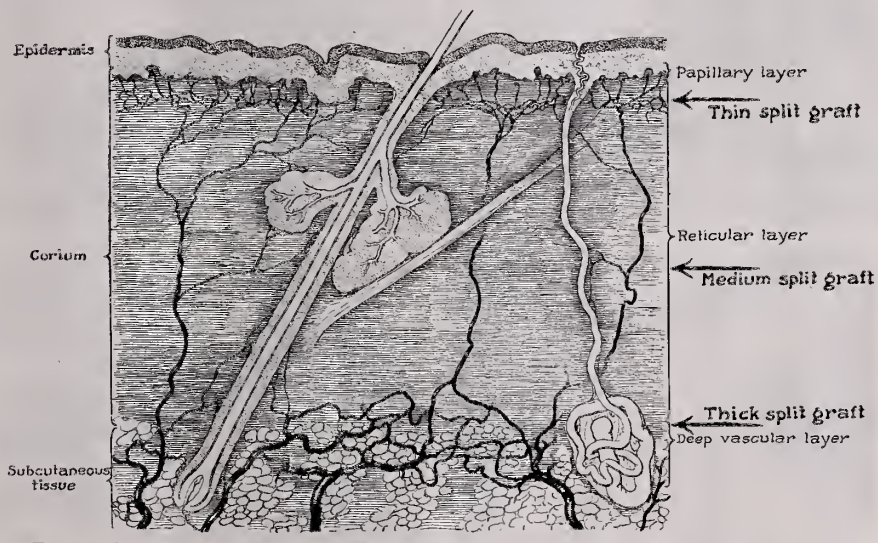

FIG. 2. A schematic drawing of the skin to depict the nature of the blood supply; the rich anastomoses in the deeper portions of the true skin and the perpendicular branches extending from the anastomosing network through the more superficial corium*. The indicated depths at which split skin grafts are cut explain why such success is encountered when these grafts are used, because of the many blood vessels cut across and ready to receive the vascular buds of the host's recipient bed. (Poth, E. J.: Surg. Gyn. Obst.: 75, 779, 1942.)

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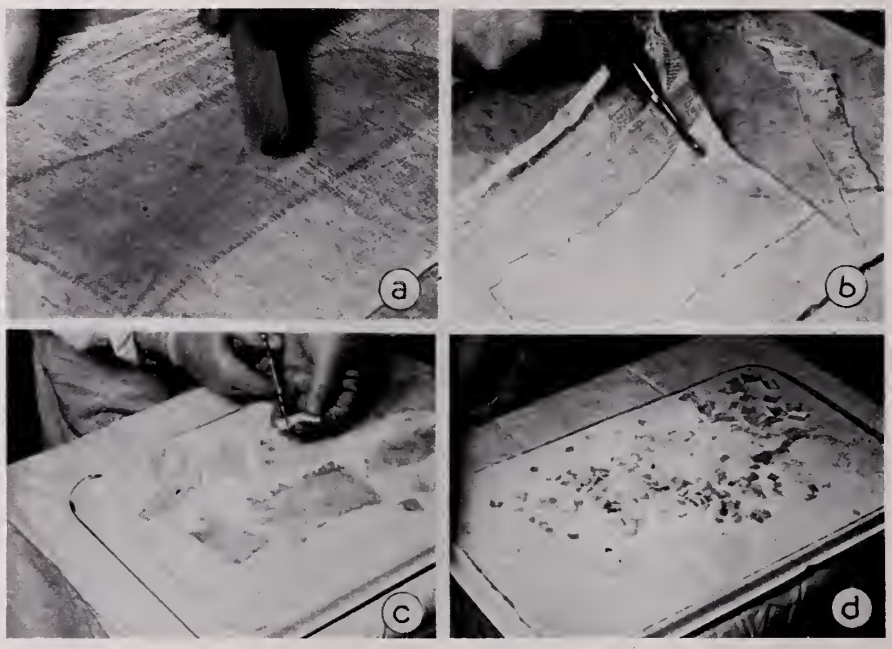

FIG. 3. The preparation of "Strip" and "Flagstone" grafts.
a. A single thickness of coarse meshed surgical gauze is attached to the epidermal surface of a split graft which has been spread on the back of an enamel pan. Flexible collodion is used as the adhesive substance.
b. The attached graft is being cut into strips.
c. The strips are being cut into small squares or "Flagstones."
d. A large number of "Flagstone" grafts ready for transfer to the recipient site.

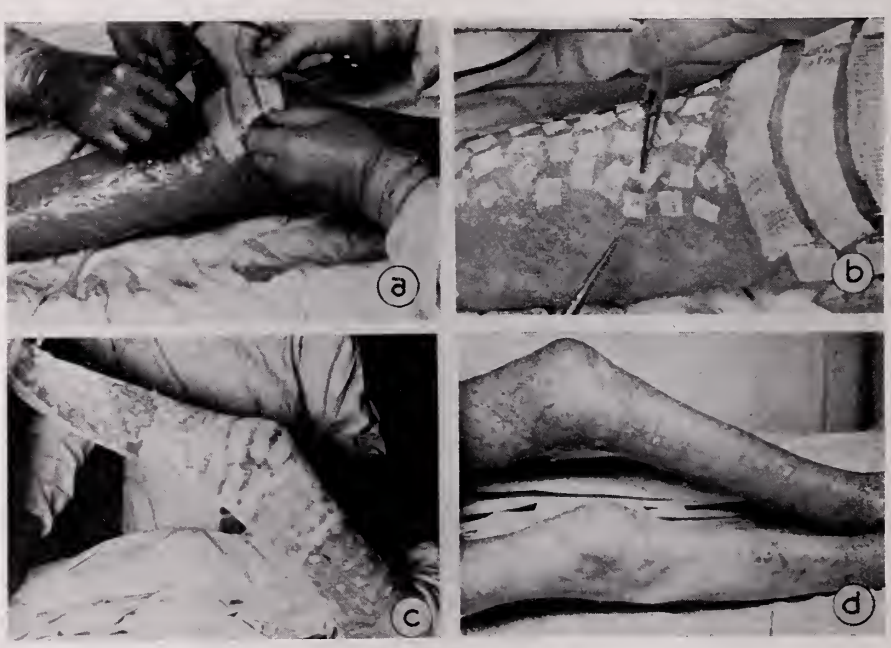

FIG. 4. Application of "Strip" and "Flagstone" grafts to a granulating surface.
a. "Strip" grafts being laid on a granulating surface close together where good coverage is desired.
b. "Flagstone" grafts being applied.
c. The entire leg has been covered with "Strip" and "Flagstone" grafts, followed by coverage with a single layer of wide meshed surgical gauze over which compresses are subsequently applied.
d. The upper leg has been grafted as indicated and is completely healed within four weeks.

ployed. This graft can be cut, for all practical purposes, in three thicknesses: thin, medium, and thick (Fig. 2). The most useful of these is the *medium* thickness graft. The *thick* graft can be cut so as to incorporate practically the full thickness of the skin, and it can be used when a full thickness skin graft is required as on the face, neck and palmar surface of the hands. The pattern must, of course, be marked out on the donor surface before the thick graft is cut and the graft subsequently trimmed to this outline. An application of a large graft, the split graft is spread, cut surface down, onto an enamel pan and a single layer of surgical gauze attached to the epidermal side with flexible collodion (Fig. 3). Thereafter, the large graft can be cut into strips or squares (Flagstones) for application to granulating surfaces. This procedure permits free drainage around each individual graft with a high incidence of "takes" on relatively "dirty" surfaces (Fig. 4). On the other hand, large composite grafts can be applied to completely

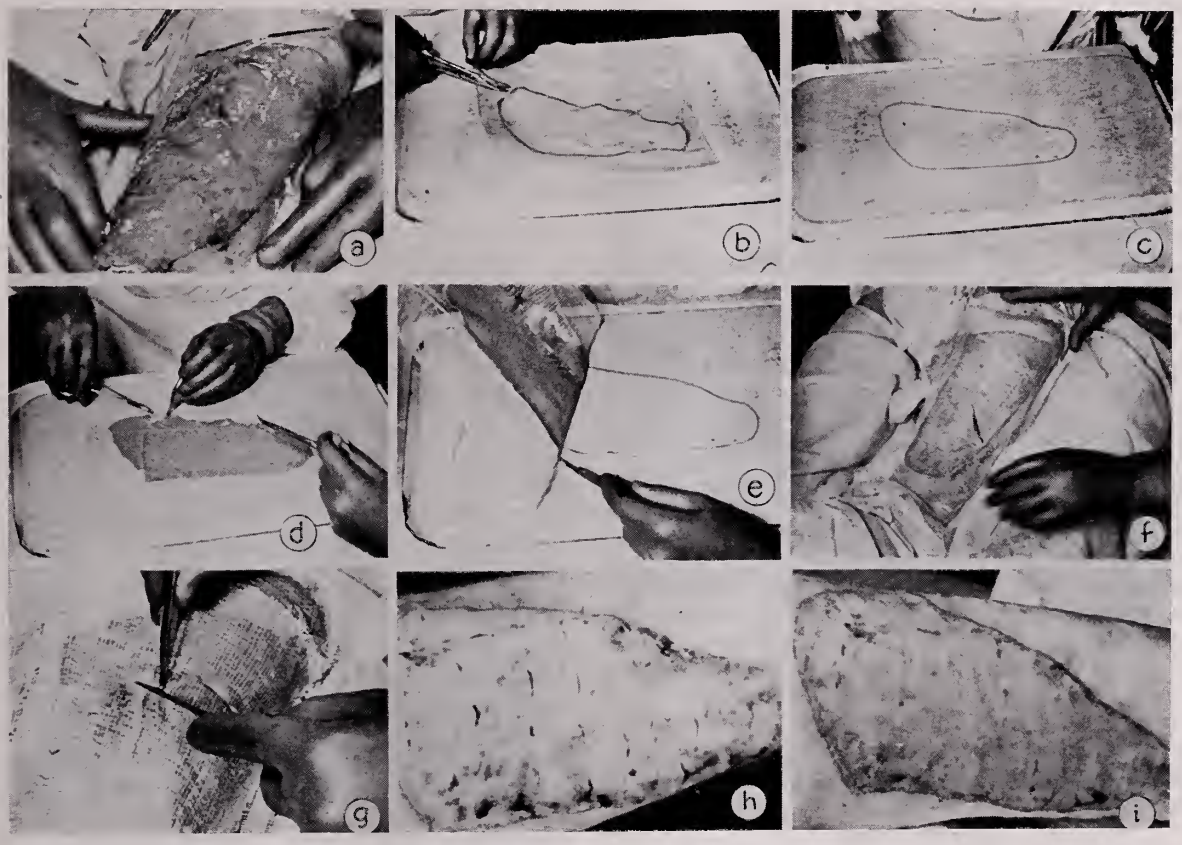

FIG. 5. The application of a large composite split graft to a surface using collodion.
a. The defect shown in figure 1 is covered with cellophane and the outline of the defect is marked out with a dye solution.
b. The pattern on the cellophane is being cut out.
c. The outline of the pattern has been transferred to the back on an enamel pan.
d. The area of the pattern is being covered with three split grafts, cut side down.
e. The composite graft is being removed from the pan after being cemented to a single layer of surgical gauze by use of flexible collodion.
f. The composite graft has been fitted to the defect and fixed in place by cementing the overlapping gauze to the surrounding normal skin with collodion.
g. The graft is being perforated by cutting slits in the graft to permit escape of fluid from the under surface.
h. The grafted surface when the dressing was first removed twelve days postoperatively.
i. Showing complete healing after an additional ten days.

adjustable knife and retractor assembly which facilitates cutting these grafts was described by the author in 1939[1] and is demonstrated in the motion picture film shown herewith.*

If the recipient surface is not suited to the cover suitable surfaces as indicated in figure 5.

Grafts may be dressed in any manner so long as they are immobilized, are kept in close contact with the recipient surface, and are not subjected to maceration and excessive infection. The best dressing, in my experience, uses glycerine as its basis. Glycerine is hygroscopic and prevents maceration. It

*EDITOR'S NOTE.—A motion picture in color was exhibited showing the technique, instruments and procedure used by the author in skin grafting.

is not irritating to skin and can be used as a vehicle for many of the organic antiseptics. At present 12.8 per cent Zehiran is added to give a 1:1000 dilution in the glycerine. It is applied according to a technique described elsewhere.[2]

THE POSTOPERATIVE CARE OF FREE SKIN GRAFTS

The care of a free skin graft during the immediate postoperative period varies considerably with the type of surface to which the graft is applied. A large graft applied to a fresh, clean surface is best left with its original dressing for five to twelve days. The small "Flagstone" grafts, on the other hand, when applied to relatively "dirty" granulations must be dressed at frequent intervals. During the initial twelve hours after application these grafts may be left open to the air. Thereafter, they are sprayed with 1:3300 Azochloramid or 1:4000 aqueous Zehiran solution, or they can be compressed with these solutions. The compresses are changed three times daily.

A highly satisfactory procedure is to dress all grafts with gauze soaked in glycerine. If the wound is clean, this dressing is not changed for five to twelve days. If the wound is a granulating surface, the dressing should be renewed daily. Frequently, free skin grafts "take" regardless of the care given them, but on other occasions, their care may greatly tax the best surgical judgment. It is imperative to inspect the wounds, the donor as well as the grafted area, if there is an elevation of the temperature after the second postoperative day. Neglect of these wounds will not mean merely the loss of the graft, but it may result in severe infections with septicemia, endocarditis, myocarditis, and so forth. The use of penicillin will greatly simplify the postoperative care of the wounds.

DISCUSSION

What determines whether or not a free graft will grow when transplanted to a new site? It would seem superfluous to mention that only an autograft can be expected to grow permanently by the methods of application known at present. A procedure may be found by which skin from one individual can be made to grow permanently on another, but at present such a practice cannot be justified, especially as a therapeutic measure in the hands of the casual operator. I have never seen an instance where this practice has been successful.

Immediately when tissue has its blood supply interrupted, the cellular elements of this tissue begin to degenerate or undergo autolysis, and without proper nutrition this process will continue to complete dissolution and death. On the other hand, a successful graft represents the process when nutrition to the tissue is re-established before complete cellular degeneration has occurred. It is, therefore, a race between these two processes, the outcome of which determines success or failure.

The cut surface of the split graft extends transversely across the perpendicular blood vessels in the corium (Fig. 2) and represents the best condition for re-establishment of the circulation by ingrowth of the vascular buds from the recipient surface into the graft. Any situation which separates the open ends of these vessels from the recipient bed will prevent revascularization and result in failure of survival of the graft.

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A NEWER METHOD IN THE TREATMENT OF FRACTURES OF THE OS CALCIS

BEN L. SCHOOLFIELD, M. D., F. A. C. S.
DALLAS, TEXAS

The writer of this article has had occasion to see the late results in a number of cases of crushing fractures of the os calcis (calcaneus) as treated at various places. Some of the results have been rather good while others were poor indeed, with a marked amount of deformity, pain and incapacity. Hence, it is believed timely to report a method which has been found good in his hands.

Textbooks on fractures usually give a list of several types of fracture of this bone to include avulsion of the tuberosity or epiphyseal separation of the apophysis, fractures of the medial and lateral processes of the tuberosity, fractures of the sustentaculum tali and fractures of the body of the bone. It is with this last-named type that we shall here concern ourselves since it is by far most frequently seen and the occasion for most of the poor results. Fractures of the heel bone represent between 1 and 2 per cent of all fractures and are far more numerous than those of the other tarsal bones.

As previously stated, this discussion will deal exclusively with fractures of the body of the bone—those severe, crushing injuries which are so often followed by considerable deformity and disability. They occur more frequently in laborers as a consequence of falls from a height. Electric sign men, painters, carpenters, bricklayers and oil-field workers are the usual victims, and the majority will be found among those in the third

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and fourth decades of life. That such injuries are not infrequently bilateral is not surprising.

The mechanics of such fractures are readily comprehended. The sudden and violent thrust of the entire body-weight on the heel bone is the causative agent, with the superimposed astragalus (talus) acting as a wedge. Only the posterior part of the bone (tuberosity) has a weight-bearing surface, while the rest of it extends somewhat obliquely upward and forward to participate in the arching of the foot in a longitudinal direction. It would be most surprising if a bone of cancellous structure failed to crack up in this situation under the impact of so great a force. Marked comminution is commonly observed, and impaction with shortening of the heel may take place. There is considerable pain and swelling, not to mention discoloration. The patient does not tolerate weight-bearing on the affected side. The heel usually appears widened and may be reduced in height.

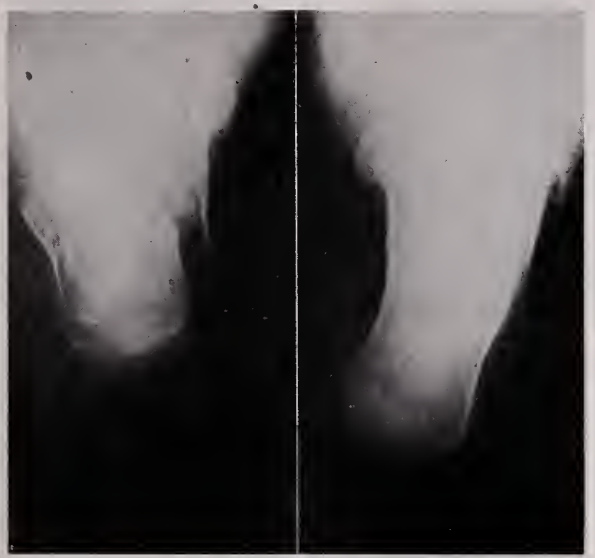

Fig. 1. (G.H.B.) "Tangential" views of both heel bones, showing fracture of the right calcaneus with considerable displacement of the distal fragment laterally (toward the fibular side). Note the lessened height of the right as compared with the left calcaneus.

Compound injuries generally result from direct trauma and are rarely seen.

The diagnosis is usually apparent after careful examination, but the x-ray study is most important in deciding the precise nature of the injury and the deformities to be corrected. The displacement of bone fragments is likely to take place along certain lines. The posterior part (tuberosity) is often displaced in an upward direction, and a concomitant shortening of the heel due to telescoping may be noted. Quite often bony displacement outward beneath and behind the external (lateral) malleolus is encountered. One or more fracture lines may involve the subastragalar joint with damage to its articular surfaces. The same may occur at the calcaneo-cuboid joint but is less often noted. It is quite apparent that such displacements deserve the greatest care in their correction, and it is also certain that the more nearly anatomical restoration is approached, the better will be the ultimate results.

Fig. 2. (G.H.B.) "Tangential" view of the right os calcis. Lateral displacement has been reduced by compression of the vise, the jaws of which are noted on either side of the bone.

The method of treatment which has been used more recently is a modification of that of Westhues, as described by Böhler*. A general anesthetic is used. The lateral displacement (widening, spreading) is corrected by the application of the vise screwed firmly over the sides of the displaced fragments. The heel must be well protected against undue pressure by the use of a heavy felt pad between it and the jaws of the vise. The vise may be that of Böhler, Forrester, or any other good vise made by the several instrument houses. Care must be taken to place the jaws of the vise just below the tips of the malleoli; otherwise the fragments may be pushed too far to one or the other side, thus defeating the purpose of reducing the lateral displacement, with the possibility of increasing the deformity. After an x-ray check-up to determine that reduction has actually been ac-

*The author is indebted to Dr. William Zuelzer for a translation of the German text as well as assistance with his first case.

complished, the next step is to introduce a Steinmann pin in the long axis of the os calcis, beginning about the middle of the posterior surface and directing the pin forward and upward. As soon as the pin is well engaged in the posterior fragment, correction of any upward tilting of this may be done by depressing the drill and pin. Thereafter, the pin is driven into the anterior fragment for fixation. Böhler calls the correction of the upward displacement of the tuberosity the restoration of the "tuber angle" to which he attaches much importance as a criterion of normal alignment. The vise is now removed and a lateral x-ray check-up may be made, if thought advisable. Needless to say, strict

Fig. 3. (G.H.B.) Lateral view of os calcis after reduction of fracture and fixation by means of the Steinmann pin and the plaster-of-Paris bandage.

asepsis should be observed in introducing the pin.

It now remains to apply external fixation of plaster of Paris. A sterile dressing is applied about the point of insertion of the pin, and sufficient padding of cotton sheet wadding is applied to the extremity from the toe tips to just below the knee. Westhues carried the plaster fixation to the mid-thigh, holding the knee in flexion. The writer has found that unnecessary and merely keeps the knee joined flexed while putting on the plaster. While the plaster is being applied, the posterior part of the heel is depressed to maintain proper alignment and at the same time the forefoot is similarly depressed in counter-traction, the toes being pushed dorsally and held in some extension. As indicated above, the plaster is carried only to near the knee joint. The foot is fixed at a right angle to the leg with a mild virus tilt. The plaster is wound around the Steinmann pin where it protrudes beyond the heel and, thus incorporated, the pin becomes an integral part of the external fixation as it already is the internal. The protruding end of the pin becomes a useful agent in both manipulation and fixation.

The patient may be allowed up as soon as he has sufficiently recovered and may walk with the aid of crutches. Naturally, if both heel bones were involved, this would be impossible. Usually, very little sedation is required following reduction. It is well, of course, to have an x-ray check-up after the hardening of the plaster, stereoscopic views being preferable for the lateral plane. At the end of six weeks, the plaster may be removed if all has gone well meantime. If the x-ray check-up at this time shows that union is progressing satisfactorily, the pin may be re-

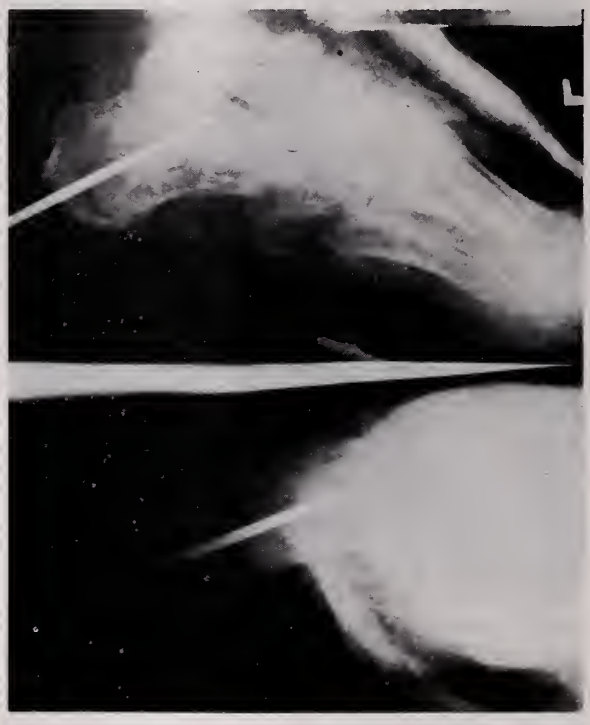

Fig. 4. (O.H.B.) Lateral and tangential roentgenograms of fractured os calcis after reduction and fixation. Note internal fixation by means of Steinmann pin in both planes.

moved. Otherwise the pin is left and the plaster-of-Paris dressing is re-applied. Removal of the pin at this stage is quite simple, as it is loose. Weight-bearing is not to be used this early, even when the plaster is left off. More time must be allowed for further consolidation of the fragments. We must rely upon x-ray study to determine when good, solid union has taken place, and weight-bearing may then begin. After the removal

of the plaster, considerable swelling of the foot and ankle is likely, with localized tenderness. This may persist for some time despite good healing and activity in walking.

The author has treated several cases of this nature by this method during the past two years and the results have been satisfactory in all. The method is not to be regarded as a "cure all." As in all surgery, judgment must be exercised in selecting cases in which it is suitable. Fixation of the fragments of the heel bone by means of the Steinmann pin applied through the long axis of the bone, agrees well in mechanical principle with ideas expressed by the author[6] several years ago when it was proposed to insert a bone peg into a drill hole made in similar

Fig. 5. (O. H. B.) Photograph in a case of fracture of the left os calcis following reduction and fixation. Note fixation of the foot at a right angle to the leg. The protruding end of the Steinmann pin is covered with plaster of Paris which incorporates it with the plaster bandage about the foot, ankle and leg, thus insuring the pin against movement of tilting inside the bone.

direction. However, the use of the metal pin has the obvious advantage of simplicity of application and economy of time.

In cases in which the fracture line penetrates the subastragalar joint, the development of traumatic arthritis is to be feared and has been observed in many in which proper reduction and fixation have not been carried out. If such an unfortunate outcome should ensue, an arthrodesis is to be considered for relief of pain. However, this has not been noted in any of the several cases thus far treated in the manner outlined above and this encourages the belief that it is unlikely where restoration of joint surfaces has been carried out along anatomical lines.

In closing, the hope is expressed that a wider knowledge and use of this, or some similar method, will lead to greatly improved results in the treatment of serious crushing injuries of this bone.

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ACUTE MASTOIDITIS FOLLOWING SULFONAMIDE THERAPY

LYLE M. SELLERS, M. D., F. A. C. S.
DALLAS, TEXAS

On June 18, 1943, James W., a white lad, 12 years of age, whom I had treated for two previous attacks of otitis media, presented himself with bilateral purulent acute otitis media. Both drumheads had ruptured spontaneously twelve hours previously. Under conservative treatment, as outlined in previous communications,[8, 9] the right ear became dry and the perforation healed on June 28. The left ear continued to drain, and on July 9 there was increased bulging of the drumhead, the discharge was under pressure, and there was beginning sagging of the posterior-superior canal wall. The drum was incised under gas-oxygen anesthesia with a profuse discharge of pus and blood. On July 12, edema of the mastoid was evident. At the request of Dr. P., an out-of-town otologist and an uncle of the patient, who was visiting in Dallas, the patient was given sulfathiazole, 1 Gm. every four hours. On July 16 all discharge had stopped, the perforation had healed and complete resolution of all evident pathologic changes had occurred.

In view of such satisfactory results in the use of one of the sulfonamides and with the literature replete with enthusiastic reports of somewhat similar results, why had I failed to make use of this drug in this case until it had progressed to an apparent surgical complication? The answer is that at the time I did not feel that we had sufficient clinical data on which to base our use of these drugs intelligently because of another and less promising side of the problem.

The history of this reverse side begins in 1937, with the report by Smith and Coon[10] of the case of a child who had been given sulfanilamide during the course of bilateral acute purulent otitis media and mastoiditis requiring bilateral mastoidectomy. Septic temperature continued after operation, and although the blood cultures were repeatedly negative, lateral sinus thrombosis was suspected as there was no sign of pulmonary, nasal sinus or meningeal involvement. When a Tobey-Ayre test was attempted the writers were astounded when they obtained cloudy spinal fluid with a cell count of 4,300. Immediate revision of the mastoidectomies and sharp increase in the dosage of the sulfanilamide effected a cure. The use of moderate doses of a sulfonamide had all but com-

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pletely masked the presence of septic meningitis.

During the next two years numerous favorable reports of the use of sulfonamides in otitis media appeared, notably that of Fisher[1] who treated two parallel groups of acute purulent otitis media. In group 1 were 95 cases that were treated by paracentesis only. Sixty-six or 69.4 per cent of these patients developed surgical mastoiditis. In group 2 were 88 patients who received paracentesis and in addition were given sulfanilamide. Here only 7 or 7.9 per cent developed surgical mastoiditis.

Horan and French[4] in 1938 reported a reduction in incidence of surgical mastoiditis from 22.7 per cent to 4.5 per cent by the use of sulfanilamide, but they warned that when mastoiditis does occur the classical clinical picture is rarely obtained and operative treatment is resorted to late in the disease.

In 1937, I[9] reported an incidence of surgical mastoiditis of only 1.3 per cent by the use of a conservative but active method of care of acute purulent otitis media. This incidence has remained essentially unchanged to the present time with the same method of treatment which does not include the use of the sulfonamides. My experience has been borne out by Ganz, Lyons and Ferguson,[2] who reported an incidence of 2.94 per cent in a series of cases carefully treated without the use of sulfonamides and an incidence of 2.57 per cent in a series similarly treated but with the addition of sulfonamide therapy. However, I have noted that although my practice has increased normally during the past few years, I am seeing relatively fewer cases of acute purulent otitis media. This may be due to the administration of sulfonamides early in the course of the initial upper respiratory infection.

But there were those who also saw the dangers present. Maybaum, Snyder and Coleman[7] in 1939 reported a series of 6 cases ranging from simple mastoiditis to sinus thrombosis, petrositis, meningitis and brain abscess—all so altered in their clinical aspects by the use of sulfonamides as to have been masked completely. They advised against starting the use of these drugs during suppuration. They considered that the greatest advantage of these drugs lay in their use after the surgical removal of the suppurating focus.

Kopetzky,[5] in 1940, stated, "I hope that more experience will relegate the use of this valuable drug to the combat of serious septic lesions and will not popularize it for the treatment of simple otitic infections, because I believe its masking effects constitute a real danger and that serious lesions develop which are ordinarily preventable by any competent otologist."

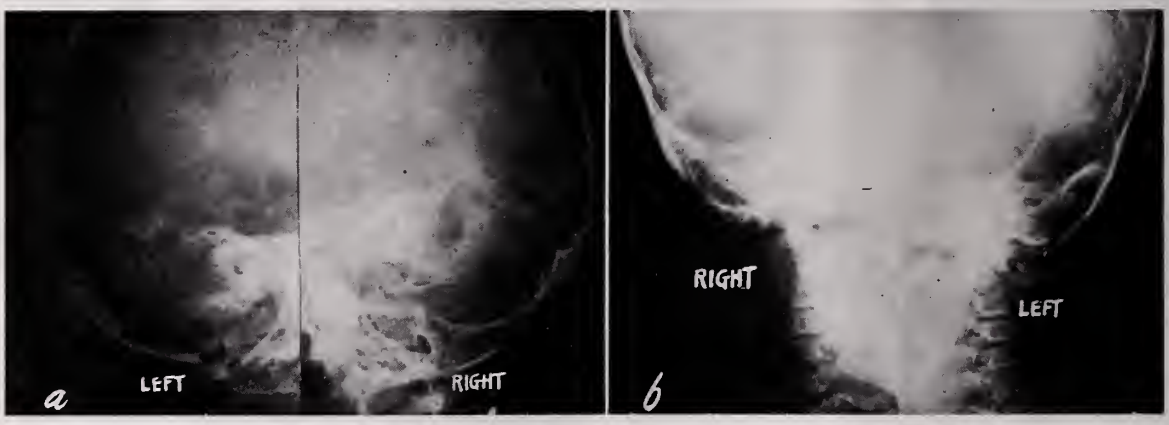

FIG. 1a. (Case 1). Note presence of intact cell walls although the outline of the lateral sinus is accentuated on the right side. *b*. Again note the intact cell walls in the anterior-posterior view.

Gilmore[3] now feels that the altered clinical picture of acute mastoiditis which follows the use of sulfonamides must be "considered an entity and acknowledged as such rather than as a transformation of established pathologic impressions." The essentials of this entity he lists as, first, the change in the pathologic process producing spotty necrosis. This results in areas of softening and necrosis, especially of the sinal and dural plates, with intervening areas of comparatively normal bone. The clinical characteristics are a retarded course resembling that found in infections from pneumococcus type 3; a variable discharge frequently sterile; thickening of the drum with sagging of the posterior-superior canal wall; increased deafness; absence of mastoid pain or tenderness; a decrease in opacity in the roentgenogram; lowering of the leukocyte count with a shift to the left—a characteristic effect of sulfonamides on the normal blood picture; negative

cultures unless para-aminobenzoic is added to the culture medium to neutralize the bacteriostatic effect of the sulfonamide present in the body fluids which are obtained when the culture is taken (a precaution now taken in almost all laboratories), and, finally, the failure of the body to develop antibodies to the organism which allows exacerbations of the symptoms to occur when the drug is withdrawn.

One note that seems to be sounded with persistent recurrence by most writers is that of the alteration of the roentgenogram, and that the roentgenologist should be warned that the patient has been taking a sulfonamide to assist him in evaluating the findings which he obtains.

To all of these I would add my own experiences in 4 cases, and my own conclusions as to the effects of the sulfonamides on mastoiditis and the proper use of these drugs in otitic infections.

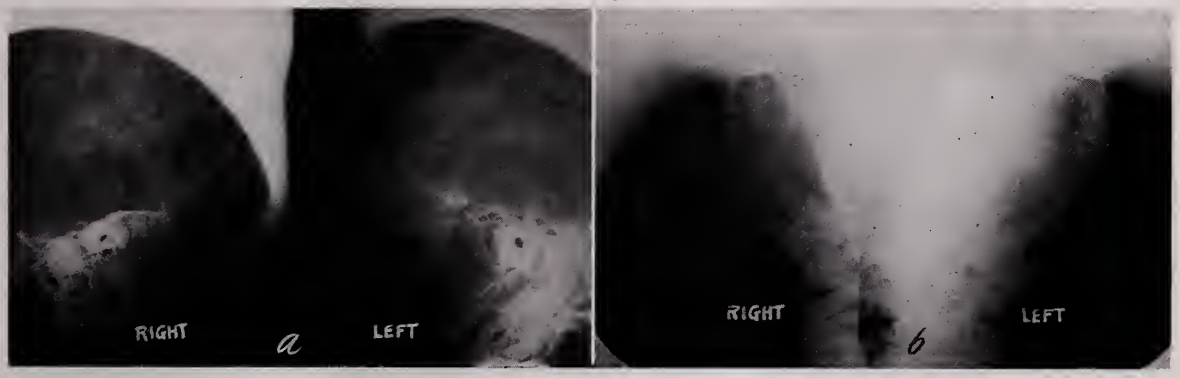

FIG. 2*a*. (Case 2). Again note the absence of any evidence of breakdown of the cell walls on the right side although some hazing is evident.
b. The outlines of the cell walls are equally evident in this anterior-posterior view.

CASE REPORTS

CASE 1.—J. H., a white girl, age 6, was seen February 10, 1942, with the complaint, discharging painful right ear.

History.—Seven weeks previously this child had had lobar pneumonia of one week's duration, treated with sulfathiazole. After resolution of the pneumonia at the end of the week, she suffered an attack of acute purulent otitis media on the right side. There was spontaneous rupture of the membrane followed by profuse yellow discharge. Sulfathiazole was again administered, locally and by mouth. This therapy had been used without apparent benefit until she was seen by me. During the past week her condition had been worse.

Examination.—The throat was normal and the nose showed moderate bilateral nasal discharge. The left ear was normal. The right ear showed excoriation of the concha and canal. The canal was filled with purulent discharge, and there was fullness of the posterior-superior canal wall. The tympanic membrane showed marked fullness with a posterior-superior pin point perforation through which the pus pulsated. The right mastoid was moderately red and tender over the antrum and body, the tip being negative. The temperature was 100 F.

A roentgenogram was requested.

On February 11 the pain and edema over the mastoid had increased, and the temperature was 101 F. The child was hospitalized, and in the evening the temperature rose to 102.4 F.

The blood count showed 22,700 leukocytes with 73 per cent polys (63 segmented, 9 bands, and 1 young form).

The roentgenologist's report was as follows: The left mastoid cell area is clear, and its cell walls are well defined. The right mastoid cell area has a slightly increased density and shows a marked degree of sclerosis of the lining membrane. The right mastoid cell area is considerably smaller than the left. There is no exudate present and there is no bone necrosis. Fig. 1*a* and 1*b*.

On February 12, right mastoidectomy was done. The tissues overlying the mastoid were thickened and granular, and a subperiosteal abscess was encountered. The sinus was exposed as soon as the cortex was removed as it lay very far forward. The sinus plate was necrotic. The mastoid cells from the tip to the antrum, then back into the sino-dural angle and forward over the antrum and into the zygoma were filled with necrotic membrane and pus. The cell walls were intact but were definitely necrotic and cut like rotten-stone rather than bone.

Culture from the mastoid revealed Beta streptococcus hemolyticus.

The case proceeded to uneventful recovery without further sulfonamide therapy, and on March 11 the wound had healed completely. The perforation of the membrane had healed at the time of the first dressing.

CASE 2.—L. H., a white girl, age 5, was seen March 14, 1943, with the complaint, painful right ear with fever.

History.—Onset of the acute purulent otitis media had occurred three weeks previously, following a cold. There was spontaneous rupture of the membrane. Twelve sulfathiazole tablets were given with improvement. One week ago the discharge lessened and the discomfort increased. Another series of twelve sulfathiazole tablets was administered with temporary benefit. For the past twenty-four hours there had been no discharge, and the pain was increasing.

Examination.—The nose and throat were normal. The left ear was normal. The canal of the right ear was red and contained moist debris. The drum was red and bulging, especially in the posterior quadrant. The mastoid was markedly tender.

The right ear drum was incised under local anesthesia, with a profuse sanguino-purulent discharge. The child was hospitalized and roentenograms requested. On March 15, the temperature was 104 F.

The blood count showed 20,000 leukocytes with 75 per cent polys (57 segmented and 18 band forms). The roentgenologist's report read, "Bilateral stereoscopic and plain tangential views of the mastoids reveal clouding of the mastoid cells on the right. The left mastoid is clear." On being told the history of the case he added, "Impression: Acute mastoiditis —right."

On March 19, the temperature had been normal for three days, the discharge had lessened, the mastoid tenderness had disappeared, the leukocyte count had fallen to 9,450 with 48 per cent polys (44 segmented and 4 band forms), and the patient's general condition was so markedly improved that she was allowed to leave the hospital.

On March 24, the temperature rose to 100.4 F., and pain and tenderness over the mastoid returned. The child was re-hospitalized.

On March 26, the temperature was unchanged, but the blood picture had altered markedly. There were 23,300 leukocytes with 66 per cent polys (58 segmented and 8 band forms). The tenderness and edema over the mastoid had increased. The report of a recheck of the x-ray findings was as follows: "Bilateral stereoscopic and tangential views of the mastoids reveal a slight increase in the degree of clouding of the right mastoid cells. There is no evidence of bone destruction." Fig. 2*a* and 2*b*.

Operation was advised, and on March 27, right mastoidectomy was performed. On incision the soft tissues were found to be thickened and edematous, and as the periosteum was incised pus was encountered. The pus came from two areas of erosion, the first lying directly over the mastoid antrum, the second lying posteriorly over the region of the sino-dural angle. The cortex cut easily, being markedly necrotic, and the mastoid cells were necrotic and filled with granulations and pus. The bony tegmen of the tympanum, antrum and mastoid was necrotic, and was removed over an area 2 cm. by 4 cm. The sinus plate was necrotic. The sinus was covered with thick granulations, and pus welled from perisinus and epidural abscesses in the sino-dural angle. The sinus was exposed from the region of the bulb upward over the entire vertical portion over the knee and backward toward the torcular for 2 cm. Culture from the mastoid yielded hemolytic streptococci.

Sulfadiazine, 0.5 Gm., was administered every four hours by mouth until April 3, when the wound appeared healthy and the temperature had been normal for three days. The wound healed without further incident, and the patient was dismissed on May 3, 1943.

CASE 3.—Mrs. M. M., Jr., a white woman, age 35, was seen January 17, 1944, with the complaint of pain in the left ear and over the entire left side of the head, radiating to the left mastoid, side of neck and left shoulder.

History.—On December 28, 1943, the patient had a severe earache following an attack of influenza. The eardrum was incised with scant drainage, and twelve sulfathiazole tablets were administered. All drainage stopped on December 31, but the pain in and about the ear continued, and on January 4, 1944, twelve more sulfathiazole tablets were administered. A possible diagnosis of sinusitis had been made, and the nose had been packed several times without relief. But most important she was told that she was neurotic and unduly alarmed because of the recent death of a relative from mastoiditis.

Examination.—The temperature was 98.6 F. The nose, throat and right ear were normal. The canal of the left ear was slightly red and thickened. The drum was slightly red and thick, but all landmarks were clearly visible. There was no mastoid edema, and there was tenderness only at Sluder's point. The

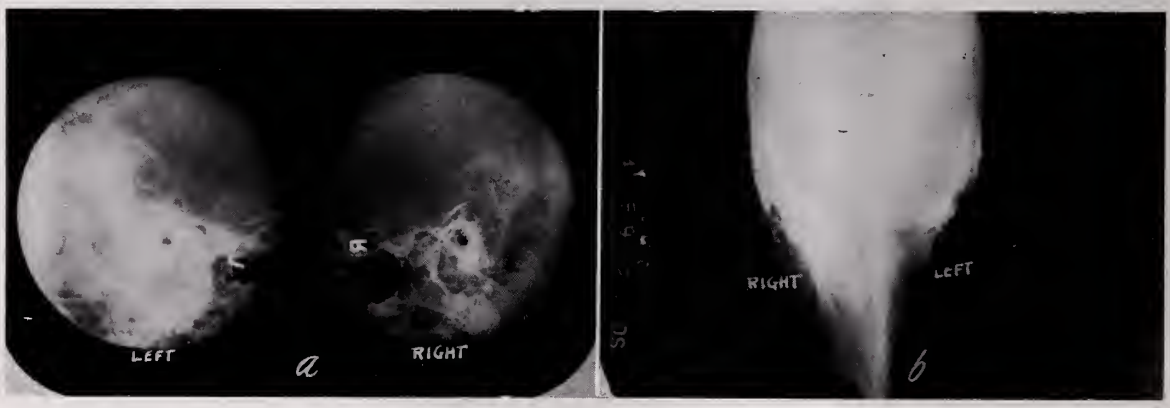

FIG. 3*a*. (Case 3). There is evident hazing of the cells on the left, but again note that the cell walls are clearly outlined and there is no evident breakdown.
b. Note the clearly and bilaterally equally outlined cell walls.

left sphenopalatine ganglion was cocainized with subtotal relief of the discomfort.

On January 19, the pain had returned and the hearing was slightly impaired. The redness and thickness of the canal and drum had increased. The ganglion was again cocainized and the tubes catheterized. Slight tubal occlusion was encountered on the left.

January 22, the tenderness over the mastoid had increased and the drum was thick and swollen. Incision revealed a doughy thickening of the membranes of the middle ear and no discharge was encountered. The patient was hospitalized.

January 23, the temperature was 98.6 F. The white cells were 9,550 with 63 per cent polymorphonuclears (58 segmented, 5 band forms). The edema of the drum and the pain and the tenderness over the mastoid had increased. The report of the roentgenologist on roentgenograms made on January 21, follows, "The cells of the right mastoid are clear while there is generalized haze over the whole of the left mastoid with no evidence of cell wall destruction." Fig. 3*a* and 3*b*.

Operation was advised, and on January 24, left mastoidectomy was performed. On incision of the soft tissues a slight amount of edema was encountered, with unusually profuse bleeding. As the periosteum was incised the knife cut into the bone of the cortex as though it were hardened cheese. The

cortex was necrotic and softened. The cells showed the characteristic picture mentioned in the other cases. The bone was softened and necrotic, and the cells were filled with necrotic membrane and pus under pressure. Culture failed to yield any growth.

Immediately following operation 1 Gm. of sodium sulfadiazine and 5 per cent glucose in 1000 cc. normal saline solution were given intravenously. Sulfadiazine, 0.5 Gm., was administered by mouth every four hours until January 31, on which date all packing was removed from the wound. Convalescence was uneventful, and the wound was healed and the patient dismissed on February 5.

CASE 4.—M. T. F., age 32, was seen February 1, 1944, with the complaint of drainage from the left ear (four weeks), and pain behind the ear (one week).

History.—The illness followed influenza. Spontaneous perforation had occurred, and sulfathiazole (exact amount unknown) had been administered. Little or no improvement had been noted, and for the past week the patient had felt progressively worse.

Examination.—The temperature was 99.4 F. The nose, throat and right ear were normal. The canal of the left ear was reddened and held a moderate amount of thick yellow discharge. The drum was red, and there was a small posterior-superior perforation. There was marked tenderness over the tip of the mastoid, without edema. Roentgenograms were requested.

On February 3, the edema of the drum and canal were increased and the discharge was more profuse, with some decrease of the tenderness. The patient was hospitalized. The temperature was 99.2 F. The white cells were 11,750, with 32 per cent polymorphonuclears (segmented 32) and 10 per cent eosinophiles. The roentgenologist's report was "The mastoids are of the pneumonic type, the right being clear. There is a generalized haze over the whole of the left mastoid with some thickening of the mucous membrane or pus in the cells without evidence of breakdown of the walls."

Operation was advised, and on February 4, mastoidectomy was performed. On incision of the soft tissues increased bleeding was encountered, and definite softening of the cortex was observed. When the cortex was removed two isolated areas of active pathologic change were revealed. The cells lying at the upper portion of the body of the mastoid, and which were connected directly with the antrum, were filled with thick tenacious exudate, the membranes were swollen and necrotic, and the cell walls were softened and friable. At the tip of the mastoid a group of cells (connected with the antrum via the deep gutter cells and separated from the cells involved at the top of the mastoid by the septum as described by Singleton) had undergone almost total coalescent necrosis. Here the cell walls were only ghosts, and the remains of the cells were filled with necrotic membrane and thick green pus under pressure. Culture taken at the time of operation yielded no growth of organisms.

Immediately following operation 1 Gm. of sodium sulfadiazine and 5 per cent glucose in 1,000 cc. normal saline solution were given intravenously and repeated on February 5. Sulfadiazine, 0.5 Gm., was administered by mouth every four hours until February 12, when the patient left the hospital.

The postoperative course was not satisfactory. There was persistent drainage from the wound which reopened about two-thirds of its length on removal of the sutures. The discharge increased and the wound refused to heal. On March 6, about 15 cc. of thick green pus exuded from the wound on removal of the dressing. Culture taken from this pus revealed pneumococcus, type 3. A small amount of penicillin having been made available we did not wait for the report of the culture, which was to be returned the following day. We irrigated the wound with 5 cc. of the solution (containing 50 units per cc.) and packed it with gauze saturated with the solution. On March 7 about two drops of pus were obtained from the wound after removal of the pack. The wound was again irrigated with penicillin, and this daily irrigation was maintained as long as a canula would enter the wound. Healing was rapid, and on March 13, the wound was healed completely and the patient discharged.

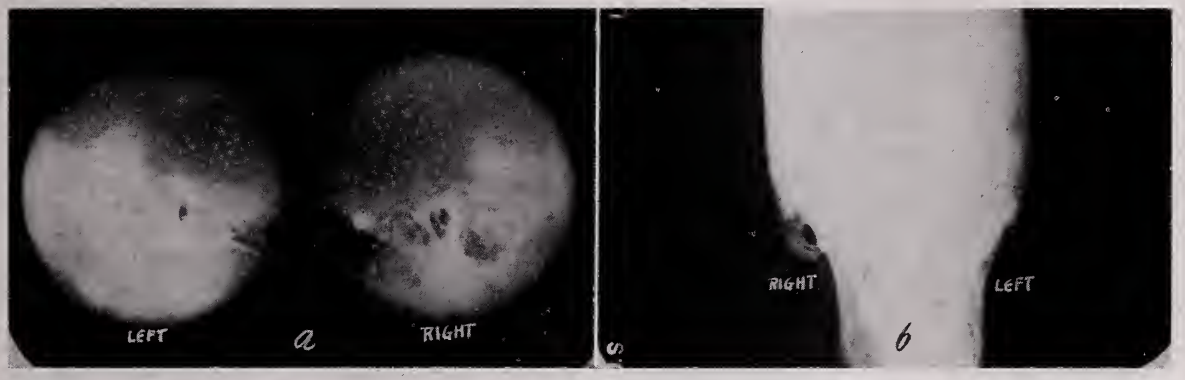

FIG. 4*a*. (Case 4). Note the haziness but the intact cell walls of the left mastoid. On the right there is a region at the tip that resembles necrosis, but this mastoid is not involved.
b. Note the clearly outlined cell walls on the left with the large cell on the right noted in the lateral view.

DISCUSSION

A short time ago, I stood at the observation windows of the monument at San Jacinto looking down at the winding ship canal—its channel marked by blinking buoys. The thought came to me that should a mischievous youngster misplace each of these buoys he could cause no greater confusion to the pilot guiding a ship down that tortuous channel than can the sulfonamides cause to the otologist guiding a patient's life and safety through the "narrows" of a suppurative otitis media and mastoiditis.

Kopetzky[6] has sounded a classical warning, and we do well to quote him:

"The physician attendant on a patient with an

otogenic infection treated with chemotherapy has little to guide him as to what is transpiring at the focal point of infection. * * * This picture is not constant nor is it characteristic of the otogenic infection or its severity."

Because in some cases in my series edema and tenderness were present, and in others one or the other was absent; because in some cases the otorrhoea was profuse and purulent, and in others there was scanty or no discharge; because in some the temperature was septic, and in others it ran a fairly normal curve; because in some the blood count was raised and shifted to the left, and in others it was normal or depressed; because in one case the necrosis was "spotty," and in the others it was generalized and extensive; because in some—one in particular which showed pneumococcus type 3 postoperatively—the course was retarded, and in others it was fairly progressive; because in some the culture was positive, and in others it was negative although para-amino-benzoic acid had been added to all media; and because in not one case was the opacity of the x-ray plates decreased I cannot agree with Gilmore[5] that sulfonamide therapy during acute suppurative otitis media produces a definite clinical entity. All that I can say is that it so clouds the clinical picture that there is no definite and characteristic picture. We have only a dangerously ill patient with no definite grouping of symptoms to guide us to a safe diagnosis and with no roentgenographic evidence of the destruction to be found, even though the roentgenologist is aware that the sulfonamides have been administered. Each case is a clinical entity of its own, and the only aid in its management that we may receive from our experience in preceding cases is to remember that there are no diagnostic criteria. Most particularly are we not to trust a roentgenogram that shows no bone destruction. If our suspicions of a surgical complication in a case of acute suppurative otitis media that is being treated, or that has been treated with any of the sulfonamides are in any way aroused, we must give the patient the benefit of the doubt and operate.

CONCLUSIONS

1. The sulfonamides probably lower the incidence of acute suppurative otitis media when given early during the initial upper respiratory infection.

2. The sulfonamides do not lower the incidence of mastoiditis in acute suppurative otitis media if the cases are otherwise properly treated.

3. If the sulfonamides are given after suppuration is present the clinical picture may be so altered that grave complications may occur with subtotal masking of their presence.

4. If complications seem imminent during an attack of acute suppurative otitis media the sulfonamides may be given, provided that we are aware of their masking action and do not mistake a masked complication for a clinical cure.

5. The sulfonamides are of value postoperatively after the focus of infection has been surgically removed or drained.

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ABSTRACT OF DISCUSSION

Dr. J. Dudley Singletary, Dallas: I have enjoyed Dr. Sellers' excellent paper. Almost since I came to Dallas in 1932, Dr. Sellers and I have operated together, with few exceptions, in all of our mastoid surgery; and it was my privilege to work with him in the 4 cases here reported. Before the days of the sulfonamides our criteria for surgical intervention in acute mastoiditis were as follows: (1) A draining ear of two weeks duration or longer; (2) pain in the mastoid area worse at night; (3) mastoid tenderness and edema; (4) sagging of the postero-superior canal wall; (5) fever usually ranging from 99 F. to 102 F. and septic in type; (6) leukocytosis; (7) a progression of the above signs and symptoms; and (8) roentgenographic evidence of bone destruction.

Most patients in our earlier cases were not operated upon until there was definite evidence of cell destruction as shown by one or more roentgenologic examinations. And during that period we had less than our share of serious complications develop in the interval of waiting and observation.

The most striking thing about this small series of cases is that not one showed roentgenographic evidence of bone destruction in the presence of widespread bone necrosis. A study of these cases impresses one with the atypical symptoms, physical and laboratory findings that may be encountered in acute surgical mastoiditis following the administration of the sulfonamides. As a result of the altered clinical picture that occurs in acute mastoiditis following the administration of these drugs, we now operate in all such cases showing evidence of persistent active infection within the mastoid that continues over an unduly long period of time.

I wish to congratulate Dr. Sellers on his splendid paper.

Dr. Claude C. Cody, Jr., Houston: Dr. Sellers has made a valuable contribution to the literature of chemotherapy in acute mastoiditis. His report of

cases establishes facts in the treatment of acute mastoiditis with the sulfonamides and demonstrates the use of penicillin with a brilliant result.

While facts once established remain fixed, their interpretation may—and usually does—vary. Sulfonamide therapy fails in some cases of both acute suppurative otitis media and acute mastoiditis with the appearance of severe complications. This is not a condition peculiar to the treatment of acute mastoiditis with sulfonamides, but likewise occurs after surgical operations. In fact, the treatments of all diseases have some failures; a very small percentage in most, but large in a few. Dr. Sellers' paper is a warning not only to the otologists but also to all physicians that acute infection in ears is still dangerous even when treated with the sulfonamides.

The sources of failure for sulfonamide therapy in acute mastoiditis seem to be the virulence of the infection, the resultant pathologic lesion, and the choice and dosage of the sulfonamide. The invading bacteria may be of a strain not inhibited by any of the sulfonamides. Bacteria seem to be able to hibernate in a thrombus or bone in the presence of a high blood concentration of the sulfa drugs, and to become active on or before the seventh day after withdrawal of the medicine. The formation of the antibodies to an infection is not affected by the sulfonamides. The administration of these drugs should not be stopped with the disappearance of symptoms such as pain, fever, tenderness or a leukocytosis, but continued several days thereafter in order to allow time for the development of immunity and so prevent a recurrence of the infection. It is quite probable that in the treatment of no other disease is the care and precision in the choice and dosage of a sulfonamide so important as in acute otitis media and mastoiditis. An adequate dosage is the criterion; *i. e.*, sufficient to maintain a high blood concentration. If the infection is not controlled by the routine dosage per pound of weight, a change of drug is indicated rather than increasing the amount. An early incision of an abscessed middle ear in order to secure surgical drainage is equally important either with or without sulfonamide therapy.

The correlation of the surgical pathology of acute mastoiditis with its clinical and laboratory findings has for over fifty years been meticulously worked out with consummate care. In fact, its essentials were only completed relatively recently by otologists still active in practice. This coördination was not on any hit or miss approximation but was established on a permanent basis and esteemed to mark a milestone in the progress of otology. To these aurists, world famous for their work in the pathologic changes of mastoiditis, and to their disciples, it seems a dangerous heresy to disturb the established relationship between the pathologic changes and clinical findings in acute mastoiditis. But it is today not an uncommon experience to find this time-tried and tested correlation radically disturbed. I have found, as others have, patients with a normal external canal, a normal tympanic membrane even to its lustre and cone of light, no pain, no tenderness and no edema about the mastoid, but with a septic temperature, leukocytosis and a slightly cloudy roentgenogram. The operation demonstrated an acute suppurative mastoiditis.

It can confidently be assumed that a surgical mastoiditis cannot be present after sulfonamide therapy without some revealing symptom, physical sign or laboratory finding. Formerly, we had the classical indications for mastoidectomy; today after sulfonamide therapy, these are no longer reliable and others must be used. To paraphrase Dr. Sellers' eloquent analogy, the range lights marking the course of our channel are still reliable; but when the fog of sulfonamide comes in and obscures them, the careful pilot either takes soundings or merely waits for conditions to clear before going ahead.

In conclusion, I wish to thank Dr. Sellers for the opportunity of hearing and the privilege of discussing his excellent paper.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, New York, 1945. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. James A. Ryan, Covington, Kentucky, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum. Dr. W. H. Browning, Shreveport, La., President; Dr. Alan Cazort, 702 Donaghey Building, Little Rock, Arkansas, Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, San Antonio, September 29-30. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Galveston, October. Dr. Q. B. Lee, Wichita Falls, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Titus Harris, Galveston, President; Miss Lucille Allen, Highland Park High School, Dallas, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association, Austin, Sept. 18-19. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Lubbock, October 10, 11, 1944. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society, San Angelo, Sept. 25. Dr. F. T. McIntire, San Angelo, President; Dr. Victor E. Schulze, San Angelo, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.
Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers, Abilene, Secretary.
Fourteenth District Society. Denison, December. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.
Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

FOURTH DISTRICT MEDICAL SOCIETY MEETING

The Fourth District Medical Society will meet September 25, at the Cactus Hotel, San Angelo, with the Tom Green Eight County Medical Society as host. The following program, which will be presented by the members of the clinical faculty of Southwestern Medical College, Dallas, has been arranged for the afternoon session:

Newer Practical Aspects of Endocrinology—Arthur Grollman, M. D., Dallas, Professor of Experimental Medicine.
Management of Obstetric Hemorrhage—W. F. Mengert, Dallas, Professor of Obstetrics and Gynecology.
Early Ambulation—John V. Goode, M. D., Dallas, Professor of Surgery.
Current Modalities in Therapy—Donald Slaughter, Dallas, Dean and Professor of Pharmacology.

An evening session will be held after a banquet, at which time Dr. C. S. Venable, San Antonio, chairman of the Committee on Public Relations of the State Medical Association of Texas, will give an address on "The Public Relations Program of the State Medical Association of Texas."

Dr. R. A. Miller, San Antonio, a member of the Public Relations Committee of the State Association, will speak on "The Threat of Governmental Medicine."

Dr. F. T. McIntire, San Angelo, is president, and Dr. Victor E. Schulze, San Angelo, secretary of the Fourth District Medical Society. Dr. R. E. Windham, San Angelo, is Councilor of the Fourth District.

TEXAS CLUB OF INTERNISTS

The Texas Club of Internists will meet September 29 and 30, at Brooke General Hospital, Fort Sam Houston, Texas.

The following scientific program will be presented during the two-day meeting:

SEPTEMBER 29

Brig. Gen. George C. Beach, Chairman

9:00- 9:15	Address of Welcome—Brig. Gen. George C. Beach, AUS
9:15- 9:45	Coccidioidomycosis—Capt. George H. Wegmann, M. C.
9:45-10:15	Presentation Cardiac Cases—Maj. E. V. Swift, M. C.
10:30-11:00	Neuropsychiatric Cases—Maj. Martin L. Towler, M. C.
11:00-12:00	Symposium on Bullis Fever—Col. J. C. Woodland, M. C., et al.
12:00	Luncheon, Brooke General Hospital.

AFTERNOON SESSION

Col. J. C. Woodland, M. C., Chairman, presiding

2:00- 2:30	Sarcoidosis—Capt. Norton W. Voorhies, M. C.
2:30- 3:00	Addison's Disease and Presentation of Cases—Maj. Fred R. Sloan, M. C.
3:00- 3:30	Medical Service in a Combat Zone—Lt. Col. H. M. Winans, M. C.
3:30	Tour of Brooke General Hospital.

SEPTEMBER 30

Lt. Col. H. M. Winans, Chairman, presiding

9:00-10:00	Round Table Discussion of Thyroid Disease—Col. John C. Burch, M. C., and Lt. Col. A. S. McGee, M. C.
10:00-11:00	Round Table Discussion of Malaria—Maj. R. H. Page, M. C.
11:00-12:00	Recent Advances in Tropical Medicine—Col. Charles F. Craig, M. C., Retired.

HOSPITALS NEEDING INTERNS AND RESIDENTS

Abilene State Hospital, Abilene. Capacity 1,394; admissions, 168; Dr. Bruce Allison, Superintendent (2 physicians, $2,400 per year, plus maintenance).

All Saints Hospital, Fort Worth. Capacity, 100; admissions, 4,819; Miss Eva Wallace, Superintendent (2 residents now).

Austin State Hospital, Austin. Capacity 2,810; admissions 613. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Lubbock General Hospital, Lubbock. Capacity 100; admissions 4,587. C. E. Hunt, Superintendent (2 residents).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Miss Ellen Louise Brient, R. N., Superintendent (2 interns, October 1; 1, January 1, 1945).

Santa Rosa Hospital, San Antonio. Capacity 329; admissions 13,672. Sister Mary of Lourdes, Superintendent (1 resident).

Wichita General Hospital, Wichita Falls, capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (2 residents needed at once. Salary $175.00 and maintenance).

The following figures detail communicable disease reports for the first six months of the years 1943 and 1944, and for July, 1943, and 1944, for comparison:

	First 6 Months 1944	First 6 Months 1943	July 1944	July 1943
Anthrax	1	3	0	1
Chickenpox	9,033	8,135	298	301
Dengue	28	16	8	12
Diphtheria	819	885	129	90
Dysentery	6,758	4,815	3,405	2,451
Influenza	90,892	28,749	1,045	1,327
Leprosy	4	1	0	0
Leth. Encephalitis	50	36	5	7
Malaria	3,040	3,251	1,086	1,363
Undulant	192	135	65	64
Measles	43,598	14,035	1,169	543
Meningitis	445	345	42	29
Mumps	3,116	6,429	335	295
Ophthalmia, Neo.	33	33	4	8
Pellagra	564	516	146	68
Pneumonia	9,681	8,033	483	706
Poliomyelitis	73	176	40	473
Rabies	1	2	0	0
Relapsing fever	11	25	3	14
Scarlet fever	2,298	1,497	153	114
Smallpox	31	67	1	2
Trachoma	75	56	15	4
Tuberculosis	6,876	4,046	598	676
Tularemia	13	24	10	5
Typhoid fever	166	122	99	105
Para-typhoid	11	17	8	8
Typhus fever	544	456	248	192
Whooping cough	5,030	12,237	1,169	1,718

State-wide totals for dysentery and typhus have risen sharply this month, with reports of 3,405 cases of dysentery and 248 cases of typhus. The steady increase brings the total for dysentery for the year to 10,163 cases and the total for typhus for the year to 792 cases. Since the peak of an outbreak usually comes in July or August, this is to be expected; however, the incidence of both diseases is greater than Texas has ever known.

It is encouraging that the poliomyelitis total for this month is well under the total for July, 1943. Although 40 cases were reported this month, which

is 29 more cases than the previous month, the incidence is well under the July, 1943, incidence, which showed a total of 473 cases.

Diphtheria was above the median every week with the exception of one. There were 129 cases reported this month, which is the greatest total known for the month of July. It is suggested that an active immunization program be instituted as soon as possible in those counties which have a high rate.

Increased prevalence of malaria also continues. Although the incidence did not go over the seven year median but one week this month, the total is 1,089 cases compared to 770 cases for the previous month.

Although the number of cases of tuberculosis has dropped considerably this month, the total for the year through July is 7,474 cases compared to 4,722 cases for 1943 through July.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during August:

Dr. Alvin Baldwin, Jr., Dallas—*Torticollis* (11 articles).

Capt. Joseph Shapiro, Camp Wolters—*Heart, infarction* (23 articles).

Dr. F. T. McIntire, San Angelo—*Vena Cava* (8 articles).

Dr. Jim Camp, Pecos—*Insects* (6 articles).

Dr. Ray Black, Huntsville—*Medicine, socialized* (10 articles).

Dr. J. M. Woodall, Big Spring—*Purpura, hemorrhagica* (26 articles).

Dr. F. B. Malone, Lubbock—*Eyes, foreign bodies* (24 articles).

Dr. Max R. Woodward, Sherman—*Undulant Fever* (28 articles).

Col. Robert C. West, Camp Swift—*Rheumatic Fever* (3 articles).

Major S. H. Nickerson, Camp Maxey—*Myositis, ossificans* (12 articles); *Embryology* (6 articles).

Capt. M. C. Carlisle, Staunton, Va.—*Children, nervous and mental disabilities* (9 articles).

Dr. O. R. Hand, Lubbock—*Medical Illustrating* (7 articles).

Dr. R. A. Roberts, San Antonio—*Herpes Zoster* (16 articles).

Dr. Heinrich Lamm, La Feria—*Urine, retention* (9 articles); *Foot, deformities* (12 articles).

Dr. Marion R. Lawler, Mercedes—*Angina Pectoris, therapy* (3 articles).

Dr. O. F. Harzke, Comfort—*Blood, sedimentation* (14 articles).

Capt. Marcus E. Cox, Sheppard Field—*Cephalin Flocculation* (9 articles).

Dr. G. V. Launey, Dallas—*Electricity, shock* (9 articles).

Dr. C. R. Cockrell, Snyder—*Skin Grafts* (13 articles); *Padgett's Dermatome* (4 articles).

Mrs. Miriam Meisenbach, Denton—*Music* (6 articles).

Dr. G. S. Rushing, Longview—*Urethra, diverticula* (14 articles).

Lieut. E. E. Miller, Beeville—*Neuritis, peripheral* (11 articles).

Dr. Joe I. Sanders, Del Rio—*Thyroid, surgery* (15 articles).

Southwestern Medical College, Dallas—(1 journal).

Dr. C. M. Tulloch, Temple—(12 journals).

Capt. Richard L. Green, Temple—(1 journal).

Dr. J. A. Little, Wichita Falls—*Estrogens, therapy* (10 articles).

Dr. H. J. Gondolf, Austin—(1 journal).

Dr. J. S. Stanley, Matador—*Syphilis, therapy* (14 articles).

Col. Richard A. Dathe, Camp Maxey—(1 journal).

Accessions

Baltimore, Williams & Wilkins Company—Novak: Textbook of Gynecology.

Philadelphia, J. B. Lippincott Company—Beardwood: Simplified Diabetic Management.

Chicago, Illinois Department of Public Health—Endrocrinology, a Brief Review for Physicians.

Summary

Reprints Received, 1,580	Local Users, 22
Journals Received, 142	Borrowers by Mail, 30
Items Consulted, 91	Packages Mailed, 33
Items Taken Out, 101	Items Mailed, 348

Total Items Consulted and Loaned, 540

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound. some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions. will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during August:

Fort Worth Army Air Field—*"Plain Facts"* (available for loan through courtesy of American Social Hygiene Association); *"Know for Sure"* (available for loan through courtesy of Texas State Department of Health).

Parent-Teachers Association, Daingerfield, Texas —*"Immunization against infectious Diseases"* (available for loan through courtesy of Lederle Laboratories, Inc.); *"Vitamins"* (available for loan through courtesy of Lederle Laboratories, Inc.)

Dr. Joe I. Sanders, Del Rio, Texas—*"Goiter Surgery"* (available for loan through courtesy of Mead Johnson & Company).

NEWS

Baylor Medical School Receives Research Fund.—The John R. and Mary R. Markle Foundation of New York recently donated a $7,000 fund for research on the brain and pituitary gland, now being conducted by Dr. Allen D. Keller at the Baylor University College of Medicine, Houston, announces Dr. Walter H. Moursund, dean. The funds were received on the first anniversary of the location of the college in Houston, after its removal from Dallas on July 12, 1943. The plant for conducting the research consists of three air-conditioned animal rooms containing specially designed animal cages, hammocks, and other laboratory equipment. The funds will support the research work for two years.—*Houston Chronicle.*

Beeville Hospital Re-Opened.—The Thomas Memorial Hospital, Beeville, which was closed about two years ago when members of its staff entered the armed services, was recently re-opened by Dr. Scott

E. McNeill, who was released from the Army sometime ago because of illness. Dr. McNeill recently underwent surgery at Galveston and has recovered sufficiently to resume his practice and take care of surgery at the Thomas Memorial Hospital. Mrs. John B. Henderson of San Antonio is superintendent of the hospital.—*Beeville Bee-Picayune.*

Magnetic Ray Belt Maker Fined.—Dr. Frank B. Moran, 79, Dallas physician since 1905, was held in contempt of court by a Federal judge, August 10, and sentenced to ten days in jail and $750 fine, states the Dallas *News.* It was ruled that Dr. Moran had violated an injunction issued by the court June 30, 1942, against transporting in interstate commerce his magnetic ray belt, made and sold by the Magnetic Ray Company, headed by Dr. Moran. The injunction was granted on petition of the government in 1942 on the grounds that the magnetic belt was mislabeled.

A letter in which Dr. Moran said that the injunction was a farce was introduced by the government. Dr. Moran said on the witness stand that it was a private opinion, privately expressed and not intended for publication. The Federal judge, in announcing his opinion, said, "Dr. Moran had shown contumacy and had deliberately gone along with his business without any regard whatever for the injunction except to seek to avoid it by duplicity."

New Hospital and Professional Building for Houston.—The Houston *Post* announces that a large office building for doctors and dentists and a 400 bed hospital will be constructed as soon as priorities can be obtained on a site adjacent to the present Hermann Hospital, according to an announcement by Col. James Anderson, chairman of the hospital committee of the board of trustees. It is estimated that the project will cost several million dollars. Colonel Anderson stated that the board has under consideration, besides the general hospital and office building, a hospital for the treatment of nervous diseases and another for children. All four buildings may be incorporated on a common base with ground floor shops and a drug store, and another floor for laboratory facilities. The general hospital will provide beds for both private and charity patients. The office building will provide revenue to enable the hospital to care for more patients, as well as to give doctors and dentists needed office space. The laboratory would be of use to the Texas Medical Center, of which the project would be a part. Tentative reservations for 60,000 square feet of office space in the office building had been made by Houston doctors and dentists, in answer to a mail questionnaire, it was said.

Annual Gift Pledge to Medical School Library.—Members of the Phi Beta Pi Medical fraternity at Southwestern Medical College, Dallas, have pledged an annual gift to the Southwestern Medical Foundation to be used for the purchase of scientific journals for the library of the School of Medicine, advises the executive secretary of the Foundation. The first annual gift made possible annual subscriptions to six medical journals.

Board of Regents Accept Convalescent Home for U. of T. Medical School.—The board of regents of the University of Texas at a meeting at Galveston in July, accepted the generous offer of the Galveston Island estate of Mr. and Mrs. Maco Stewart of San Antonio and Galveston, to the University of Texas Medical Branch for use as a convalescent home for children. The estate was named the Margie B. Stewart Convalescent Home for Children. It will provide exceptional facilities for handling between 30 to 50 convalescent children, with outdoor fresh and salt water pools, and special facilities for occupational and physical therapy. The project will comprise an important part of the Child Health Program of the University of Texas Medical Branch, as supported by the William Buchanan Foundation of Texarkana. The medical work of the new Home will be under the direction of Dr. Arild E. Hansen, professor of pediatrics, while the surgical aspects and the physical therapy will be under the direction of Dr. G. W. N. Eggers, professor of orthopedic surgery.

The Association of Military Surgeons of the United States will hold its next annual meeting at the Pennsylvania Hotel, New York City, November 2, 3, and 4. Addresses will be delivered by the Surgeons General of the Army, Navy, Public Health Service, and other distinguished medical officers of the various services. There will be forum lectures covering war surgery, chemotherapy, communicable diseases, neuropsychiatry, medical problems in theaters of operation, dental rehabilitation and equine encephalitis.

Topics for discussion panels which will be integrated with the forum lectures are: war wounds, burns and fractures; neuropsychiatric problems; treatment and prevention of venereal diseases; penicillin and sulfonamide therapy; orthopedic and reconstruction therapy; neurosurgical problems; tropical diseases in the Army and Navy, and aviation medicine. There will be outstanding scientific exhibits including material from the Army, Navy and Veterans Hospitals, the Carlisle Barracks Medical Field Training School, many medical depots and the Office of the Army Surgeon General. There also will be technical exhibits from commercial firms.

The registration desk will open November 1. Lieut. Col. R. E. Ladue, 52 Broadway, New York 4, N. Y. (Ha. 2-5200), should be notified of any difficulties encountered in securing rooms through the Hotel Pennsylvania.

The American Public Health Association will hold its second wartime Public Health Conference and 73rd Annual Business Meeting in New York City, October 3, 4 and 5. Related organizations will meet October 2. Headquarters will be the Hotel Pennsylvania.

The scientific program will be devoted to wartime emergency matters as they affect public health. Reginald M. Atwater, M. D., is chairman of the program committee.

National Go-To-School Drive.—The U. S. Office of Education and the Children's Bureau of the Department of Labor, with the coöperation of the Office of War Information, are conducting a nation-wide effort to get boys and girls to return to school this fall. High school enrollment has dropped one million since 1940. During the summer, millions of high school boys and girls took vacation jobs and many of them want to continue to work instead of returning to school. While the radio, newspapers and magazines will be used in the drive, it is recognized that the most value to be obtained in the movement will result from local community and organization activities. Those who are closest personally to the boys and girls can most effectively encourage them to return to school. A handbook containing suggestions for the use of communities which will coöperate in the movement has been prepared by the Children's Bureau and the U. S. Office of Education, which can be secured on request.

Seminar in Legal Medicine.—The Harvard Medical School, Courses of Graduates, with the coöperation of the medical schools of Boston University and Tufts College offers a seminar in legal medicine for the entire week of October 2 to 7, inclusive. The seminar plans are particularly for medical examiners and coroners physicians but will be open to any other suitable graduate of an approved medical school.

The course will be practical rather than theoretical and will consists of autopsy demonstrations, technique and interpretation of laboratory tests, study

of the day-by-day cases of a medical examiner, round table conferences, and the many subjects now included in the widening field of legal medicine. In order that each participant may receive the maximum benefit, the enrollment has been limited to fifteen. The fee for the seminar is $25. Application should be made on or before October 1 to Harvard Medical School, Courses for Graduates, 25 Shattuck Street, Boston 15, Massachusetts.

Massachusetts Medico-Legal Society in conjunction with the medico-legal department of Harvard, Boston University and Tufts Medical Schools has arranged for an all-day conference to be held at the Mallory Institute of Pathology, Boston City Hospital on October 4. The conference will include lectures, demonstrations, and informal discussions, concerning many subjects in legal medicine, particularly stressing some of the more recent procedures. The meeting will be opened to any registered physician, lawyer, police official, senior medical student or other medical investigator who may be interested and care to register. There will be no fee for registration. While advance application is not essential, it will be helpful for those arranging the conference if notice of intention to attend is sent prior to October 1 to Dr. W. H. Waters, Department of Legal Medicine, Harvard Medical School, Boston.

The American Hospital Association will hold its third war conference and 46th annual convention in Cleveland the week of October 2. Representatives from 3,000 hospitals in the United States and Canada will attend.

Miss Eva M. Wallace, president of the Texas Hospital Association and superintendent of All Saints Hospital in Fort Worth, will discuss the problem of maintaining adequate nursing staffs in small institutions. Models of good municipal hospital management, planning for children's hospitals, the newest in psychiatric treatment will be subjects for discussion. Rehabilitation plans will include consideration of the Federal program, the education necessary to rehabilitate an individual and the means for securing employment after rehabilitation.

The effect of the present program on the future of nursing and a survey of nursing resources will be discussed. Other topics of interest will be hospital purchasing, public relations, the Blue Cross and other hospitalization plans, dietetics and personnel policies.

U. of T. President Recommends Moving Medical School.—At a meeting of the University of Texas Board of Regents in Austin, July 15, University President Homer P. Rainey presented to the regents a development plan for the University of Texas in a report covering 94 typewritten pages. Much of the report dealt with the highly controversial issue of removing the School of Medicine from Galveston to Austin. Since publication of the recommendations of President Rainey, the citizens of Galveston have been up in arms protesting such move. President Rainey's recommendation also included removal of the Texas Dental College, now a part of the University, from Houston to Austin. While that move has been protested in the public press of Houston, it has not caused the furor exhibited in the Galveston newspapers. Not only has the faculty of the medical school at Galveston and the Galveston County Medical Society announced vigorous opposition to such move, but the mayor of Galveston, the Chamber of Commerce, numerous civic organizations, and outstanding citizens of the island city have published vehement statements against the proposal. Most Reverend C. E. Byrne, bishop of the diocese of Galveston, even charges that the patriotism of Dr. Rainey might well be questioned for stirring up trouble and controversy in recommending the removal of the medical school from Galveston during the present emergency. The Bishop charges that, "The president's dream would upset the order of things at a time when physicians and surgeons are badly needed and our army and navy men are working at top speed. He is proposing a great bond issue of millions to carry out this dream when the whole country is clamoring for bond sales to win the war."

Dr. C. D. Leake, dean and vice-president of the University of Texas School of Medicine, refutes the statements made by President Rainey in support of his proposal, in an extended statement in the Galveston *Tribune*. Dr. Leake declared that "the statement made by the President that the schools are and will remain substandard is contrary to fact. . . ." He asserts that the proposal came as a startling surprise, and pointed out that "it had been agreed by all concerned that the health program should be systematically and carefully explored under the direction of the medical committee of the board of regents."

"This committee," stated Dr. Leake, "has been obtaining information about the health program for some time. . . . " He pointed out that "unfortunately the President is apparently misinformed regarding the status of the medical school, the John Sealy College of Nursing and the Dental School. The fact is that the medical school is fully and completely approved for grade A standing, both by the Association of American Medical Colleges and the College of Medical Education and Hospitals of the American Medical Association. . . . The medical school staff knows what is wrong and knows what is needed to make the school equal to any in the country."

Dr. Leake asserts that the chief need is for more beds, and the Sealy-Smith Foundation is designed to meet this pressing need and has made a most generous offer to the board of regents for the construction of a new hospital.

"At present," states Dr. Leake, "the University School of Medicine ranks in the upper third of American medical schools. This deliberate statement is made on the basis of a comparison with other schools with respect to (1) physical facilities; (2) financial support; (3) quality and character of teaching staff; (4) educational program; (5) research productiveness."

The Galveston *News*, in a scathing editorial on the "Rainey Plan," asserts that Dr. Rainey implied that the physical facilities of the medical school are worth only one million dollars, whereas, the value of land, buildings and equipment are carried on the books of the University at $4,463,346.64. The Galveston *News* says further, that "We are impressed not so much by Dr. Rainey's apparent ignorance or careless handling of the facts concerning the schools at Galveston as with the folly and extravagance of the whole proposal. He is asking the people of Texas to junk the present investment at Galveston and the $15,000,000 to $20,000,000 the medical school ultimately will receive from the Sealy & Smith Foundation and spend between $8,000,000 and $9,000,000 to build and equip a new school on the campus at Austin. In our opinion he has failed completely to justify that huge expenditure."

The *News* further points out that. "Moving the medical school would require a constitutional amendment, and Dr. Rainey proposes to have the legislature submit an amendment for that purpose and another to permit the university to issue bonds to finance the program. He would like to spend $13,000,000 immediately for building at the main university and $20,000,000 or some such sum for a long-range expansion program. The people have proved that they are willing to spend whatever is necessary to maintain a first-class university, but we don't believe they will consent to squander money in any such way as Dr. Rainey proposes."

The Galveston *Tribune* expresses regret that Dr. Rainey's proposal received such extended publicity in the newspapers of the state which, at the same time, failed to carry the voiced approval of the board of regents of the conduct of the medical school under the administration of Dr. C. Leake as dean, in resolutions adopted by the board, presented by its medical committee, as follows:

"We, your medical committee, recommend that the board of regents of the University of Texas express to the staff and faculty of the medical branch our sincere appreciation and full and complete confidence for the successful organization, coöperation and accomplishment that have been done and performed by those responsible for the medical branch since it has been under the supervision of Dr. Leake.

"The administration of the medical school under Dr. Leake had, and now has, the complete coöperation and unified efforts of every department and member of said medical school, as well as the generous coöperation and confidence of the Sealy & Smith Foundation which has for many years coöperated in behalf of the medical school and without which the medical branch could not have been successfully conducted."

The Houston *Post* protests editorially the removal of the dental college in Houston to Austin and suggests that, "eventually the State could realize the best medical school in the South—better than it could have at Austin or Galveston, and at less cost—by moving the school to Houston. Here it would have all the clinical and coöperative advantages of the great medical center being developed here—advantages not available anywhere else in Texas. With the cancer hospital, the $12,000,000 naval hospital authorized for Houston, Baylor university's school, Hermann hospital and the municipal medical plant, all accessible to students requiring special facilities and specialized advice, the university could give its medical students instruction unsurpassed in the whole United States."

President Rainey, in support of his proposal, charges that a frank evaluation of the situation reveals three major handicaps resulting from the beneficent gifts of the Sealy-Smith Foundation to the medical school. He asserts that, in the first place, the Sealy-Smith Foundation has been, and is, primarily concerned with furnishing medical and hospital care to the indigent sick of Galveston and not in furnishing teaching hospital and clinical material for the medical school. The second major handicap, he explains, is that gifts inevitably limit the uses for which they are made and to that extent control the policies of the institution receiving them. The third handicap, he states, is that the relationship of the University with the Sealy-Smith Foundation is psychological and political; that it has been, and is, difficult to persuade the Legislature to appropriate adequate funds to support the John Sealy Hospital and the nursing program. He contends that "we can never have the type of teaching hospital (needed) until it is supported entirely by the state, whether in Galveston or elsewhere."

Dr. Rainey defends the financial outlay that would be required in his proposal, according to the Dallas *News*, as follows: "Assuming first that the medical school will be left in Galveston, it is estimated that we shall have to spend from $3,000,000 to $5,000,000 in order to meet our reasonable needs there for more hospitals and laboratories and equipment.

"Assuming also that the school of dentistry will be left in Houston, it is estimated that we shall have to spend at least $1,000,000 there to bring our facilities up to standard.

"Then our building committee for the main university has recommended building on the campus here the following buildings, all of which would be useful to a combined medical program centered in Austin; a student health center, $500,000; a pharmacy building, $400,000; a biochemistry building, $400,000; a biology laboratory building, $400,000; a chemistry laboratory building, $600,000.

"If we add to this sum our needs in Galveston and Houston ($6,000,000), we get the sum of $8,300,000 that we would have to spend in Galveston, Houston and Austin, if we leave things as they are.

"If on the other hand we should center all the program in Austin our building might be developed as follows:

"A 1,200-bed hospital, $3,600,000; a pharmacy building, $400,000; a biochemistry building, $400,000; a biology laboratory building, $400,000; a chemistry laboratory building, $600,000; a dental building, $500,000; a laboratory and classroom building for medicine and dentistry, $1,500,000; a dormitory for nurses and nursing students, $1,000,000; total $8,400,000.

"By placing the entire program in Austin we could effect certain savings. For example, if we built a 1,200-bed hospital adjacent to the campus we could use it also for student hospitalization and eliminate $500,000 for our student health center. Similarly, in our pharmacy, biochemistry, biology laboratory and chemistry laboratory buildings we could take care of a considerable part of the basic sciences for medicine, dentistry and pharmacy. Our expenditure for a dental building might, in this way, be reduced from $1,000,000 to $500,000."

Personals

Dr. W. B. Russ, San Antonio, and *Dr. George W. Cox*, Austin, were the principal speakers on the program of the Central East Texas Waterworks and Sewage Association meeting held recently at Jacksonville. Other prominent visitors at the meeting were V. M. Ehlers, Austin, state sanitary engineer, and Dr. W. P. Harrison, Teague, a member of the State Board of Health.—*Jacksonville Progress.*

Dr. A. I. Folsom, recently named president-elect of the American Urological Society, was honored with a dinner at the Baker Hotel, July 17, at which time Congressman Hatton Sumners, Dr. E. H. Cary, Dr. Raworth Williams and Dr. Edward White were principal speakers.

Dr. Folsom had served as chief of the urological section at Baylor Medical School, and is now head of the same department at Southwestern Medical College. A Texan, educated at Southwestern University, Georgetown, and the old Southwestern Medical School in Dallas, Dr. Folsom began general practice in Dallas in 1908, and in 1912 he specialized in and has since limited his work to urology, in which field he has gained international recognition.—*Dallas News.*

The fiftieth wedding anniversary of *Dr. and Mrs. T. D. Frizzell*, Quanah, was observed by the couple July 22. Mrs. Frizzell is the former Miss Annie Cotten of Athens.—*Athens Review.*

Dr. W. W. Looney, long-time professor of anatomy at Baylor Medical School, Dallas, and professor and chairman of the department of anatomy at the Southwestern Medical College, has resigned to enter private practice, it was announced August 23, by Dr. E. H. Cary, president of the Southwestern Medical Foundation.

In recognition of his many years of service to medical education, Dr. Looney was appointed to the honorary position of Emeritus Professor of Anatomy. He will begin practice in Greenville about September 1.

Dr. Ray Hannan, Ladonia, was recently elected president of the Junior Chamber of Commerce, advises the Hopkins County *Echo.*

Dr. Chauncey D. Leake, vice president and dean of the University of Texas School of Medicine, has been named a member of the advisory committee of the

University of Texas Press, which will publish scholarly and scientific articles. The board of regents at its April meeting approved establishment of a University Press, and publication of its first book, "Presidential Government in the United States," by Dr. C. P. Patterson, professor of government.—*Galveston News.*

Dr. D. Bailey Calvin, registrar of the University of Texas School of Medicine, succeeded to the office of president of the Galveston Rotary Club in July, states the Galveston *Tribune.*

Two complete sets of bronchoscopic equipment donated by *Dr. H. B. Decherd* to the XI Chapter of Phi Chi medical fraternity have been presented to the Southwestern Medical College, Dallas, according to the Dallas *News.* Dr. Decherd and *Dr. Dexter Hardin,* who has given an extensive library to the fraternity, were honored recently with an open house at the chapter home, 2512 Maple.

Dr. Bruce Allison, senior psychiatrist at Wichita Falls State Hospital, was recently appointed superintendent of the Abilene State Hospital, succeeding *Dr. M. A. Beckman,* who has resigned to enter private practice, September 1.—*Wichita Falls Record News.*

Marriage

Dr. Hubert J. Thomas, Dallas, was married to Miss Joella Henderson of Burkett, July 12, in Wichita Falls. Dr. Thomas received his M. D. degree from Baylor University School of Medicine in 1943, and at present is resident physician at the Wichita Falls Clinic Hospital.

Births

A daughter, Linda Lee, to Dr. and Mrs. John J. Andujar, 2951 Benbrook, Fort Worth.

A son, John Charles, to Lt. and Mrs. E. F. Tritt, 3001 French Place, Austin. Colonel Tritt is at present attached to the A. S. F. T. C., Camp Barkley, Texas.

SOCIETY NEWS

Bell County Society

June 7, 1944

(Reported by J. H. Greenwood, Secretary)

Bell County Medical Society met June 7, at the Kyle Hotel, Temple, with sixteen members, six interns and five visitors in attendance.

Letters were read by the secretary from the M. D. Anderson Hospital for Cancer Research, Houston, asking doctors of the state to send patients who are in need of cancer treatment and to provide material for cancer research; from Dr. Arild Hansen, professor of pediatrics, University of Texas School of Medicine, and director of the Child Health Program, asking the coöperation of physicians in a program to evaluate the use of penicillin in the treatment of congenital syphilis; from the Southwestern Medical Foundation, Dallas, requesting ideas and suggestions concerning postgraduate medical education which will be in demand at the conclusion of the war; and from the McLennan County Medical Society requesting papers for the program of the Twelfth District Medical Society.

Charles Phillips reported that the committee on public health had met with Dr. A. E. Ballard, director of the Central Texas Public Health Unit in Belton, and had advised against any action being taken at present with regard to a child welfare program or for the establishment of a public health clinical laboratory in Belton. Dr. Phillips moved that the Society endorse an immunization program to be carried out by the Unit in Temple, which motion was seconded by G. V. Brindley and carried.

G. V. Brindley, Councilor of the Twelfth District, gave a report of the meeting of the House of Delegates in Dallas in May, at the conclusion of which meeting Dr. H. F. Connally of Waco assumed the office of president of the State Medical Association. Dr. Brindley suggested that Dr. Connally be invited to be a guest speaker at a forthcoming meeting of the Society.

Gray-Wheeler Counties Society

July 20, 1944

(Reported by H. L. Wilder, Secretary)

Urethral Strictures as seen in General Practice—P. C. Christian, Pampa.

Management of Urethral Strictures—A. Keller Doss, Fort Worth.

Gray-Wheeler Counties Medical Society met July 20, in the Schneider Hotel, Pampa. Following a Dutch lunch, a scientific program as given above was carried out.

A. Keller Doss illustrated his talk on the management of urethral strictures with lantern slides and a colored motion picture. Dr. Doss also showed aortograms and colored motion pictures of the technique of this diagnostic procedure, which is useful in recognition of renal lesions and other abdominal conditions. The procedure is now being used by only three physicians in the United States.

Lt. Col. Smith of the Pampa Army Air Field stated that the care of the dependents of soldiers stationed at the field had become a burden to the medical staff and it was taxing their capacity to the limit. The number of physicians on the staff has been reduced to a minimum and there is barely enough personnel to care for the soldiers. There have been 130 confinement cases with other conditions in proportion in the past few months. Colonel Smith asked members of the Society to give all the aid they could and to coöperate with the Red Cross in working out some plan by which the burden of this work might be equalized. Any work done by the medical corps for dependents of army personnel under the rank of technical sergeant cannot be charged for. A committee composed of W. C. Jones and R. M. Brown was appointed to confer with the Red Cross and Colonel Smith and to devise some plan that would meet with the approval of all concerned.

Lavaca County Society

July 12, 1944

Members of the Lavaca County Medical Society were entertained with a chicken barbecue by Drs. J. W. Boyle and F. M. Wagner, at the home of Dr. Wagner, in Shriner, July 12. After the barbecue, a regular business meeting with program, case reports and discussions, was carried out in the clinical building. Twelve physicians were present.

DEATHS

Dr. David York Willbern of Runge, Texas, died July 3, 1944, of lobar pneumonia, following a cerebral hemorrhage which occurred May 3, 1944.

Dr. Willbern was born July 4, 1871, in Karnes County, Texas, the son of Ferdinand C. and Adeline A. Willbern. His academic education was received in the schools of his community. His medical education was begun in the Medical Department of the University of Texas, Galveston, and completed in the Tulane University School of Medicine, New Orleans, in May, 1900. He lived and practiced for a short period of time in Llano, and Cherokee, Texas, prior to his location in Runge in December, 1901. With the exception of a period of two years in which he lived and practiced in Alice, Texas, he was in practice continuously in Runge until 1940, when he was compelled to retire because of his health.

Dr. Willbern was a member for many years of the Karnes-Wilson Counties Medical Society, State Med-

ical Association and American Medical Association. He exemplified the type of country doctor and family physician so greatly revered, and had rendered many years of useful service to the community in which he practiced. He was highly regarded by all who knew him.

Dr. Willbern took an active part in the civic life of his community and served for a number of years on the school board. He organized and operated successfully the Runge Fraternal Fund, a local mutual life insurance company, from 1922 to 1940, when he retired. He was a member of the Church of Christ and a thirty-second degree Scottish Rite Mason.

Dr. Willbern was married in 1899 to Miss Lavinia Ricketson of Llano, Texas, who died in 1913. On July 30, 1914, he was married to Miss Berta Young of Runge, who survives him. He is also survived by one daughter of his first marriage, Mrs. Drucilla Marshall, Hico; and three sons by his second marriage, York Y. Willbern, U. S. Army Air Corps, now stationed in New Haven, Connecticut; Roy Willbern, Houston; and Clyde E. Willbern, U. S. Navy, in the South Pacific area. He is also survived by a brother, H. K. Willbern, Kyle.

Dr. B. F. Chambers of Port Arthur, Texas, died May 18, 1944, at his home, of myeloma.

Dr. Chambers was born July 9, 1873, in Palestine, Texas, the son of B. F. Chambers and Amanda (Rucker) Chambers. His academic education was received in the public schools of Anderson County and the Summer Hill Select Normal School at Omen, Texas. He began the study of medicine in Tulane University, New Orleans, later transferring to the Memphis Hospital Medical College, from which latter institution he was graduated in 1901. He had lived and practiced at Ash, Grapeland, Flint, Loraine and Bullard, Texas, prior to his location in Port Arthur in 1923, which was his home the remainder of his professional life.

DR. B. F. CHAMBERS

Dr. Chambers was a member throughout his professional life of the State Medical Association and American Medical Association through the county medical societies of his various places of practice. He had served Jefferson County Medical Society as vice-president and had served as president of the staff of the St. Mary's Hospital, Port Arthur, on which staff he served as a member for many years. He was a member of the Southern Medical Association. Dr. Chambers found time from a busy practice to have an important part in the community life of Port Arthur. He was a past president of the Lions' Club. He had served as steward in the Methodist Church for thirty-eight years. He was a member of the Masonic and Woodmen of the World fraternal organizations. He was held in the highest esteem by his medical associates and the clientele he served.

Dr. Chambers is survived by his wife, the former Miss Nettie McMinn of Tyler, Texas, to whom he was married July 21, 1907. He is also survived by a son, Frank M. Chambers, Colorado Springs, Colorado; three sisters, Mrs. H. R. Turbyfill, and Mrs. Glenn Wright of Palestine, and Mrs. Ed Norwood, Nacogdoches; and one brother, Clarence Chambers, Elkhart.

Dr. William S. Carter, former dean of the University of Texas School of Medicine, Galveston, died May 12, 1944, at his home in Auburndale, Massachusetts.

Dr. Carter was born April 11, 1869, in Warren County, New Jersey, the son of William and Ann (Stewart) Carter. His medical education was received in the University of Pennsylvania, from which he was graduated in 1890. He served as assistant demonstrator of pathology at the University of Pennsylvania from 1891 to 1894; as assistant professor of comparative physiology from 1894 to 1897, and was demonstrator of physiology from 1896 to 1897. In 1897, he came to Galveston in connection with the yellow fever epidemic, and while there accepted the position of professor of physiology in the University of Texas School of Medicine. He reorganized that department introducing modern laboratory methods and inaugurated courses in hygiene and public health in addition to founding the department of pharmacology. He was instrumental in the addition of a number of buildings to the John Sealy Hospital and assisted in promoting the building of a special outpatient clinic and Children's Hospital, as well as new buildings in connection with the medical school.

DR. W. S. CARTER

In 1922, at the request of the Rockefeller Foundation, the University of Texas lent Dr. Carter to the University of the Philippines, Manila, where he assisted in the organization and development of the medical school. In 1923, he became associate director of the Medical Sciences Division of the Rockefeller Foundation. In this capacity, he made important surveys of medical education in the Philippines, Australia, South Africa, Java and New Zealand. In 1925, he became acting director of Peking Union Medical College, where he assisted in the expansion of medical education in China. In 1926, he made an official survey of medical education in India, and was instrumental in the establishment of the School of Tropical Medicine at Calcutta. He retired from work with the Rockefeller Foundation in 1934, and in 1935, he again assumed the office of dean of the University of Texas, succeeding the late Dr. G. E. Bethel, at the insistence of the Board of Regents of the Uni-

versity. He continued in this capacity until 1938, when he retired to his home in Massachusetts.

Dr. Carter was a member of the Galveston County Medical Society, State Medical Association and American Medical Association for many years. He was a member of the National Board of Medical Examiners, the American Physiological Society and the College of Physicians of Philadelphia. He was an authority on physiology, and a medical administrator of international renown. He was a pioneer in the field of public health, particularly in promoting measures for the control of tuberculosis, and was among the first to emphasize the dangerous sequelae of mild, acute infections, such as scarlet fever.

Dr. Carter was a teacher of unusual ability as well as a splendid executive. He contributed notably to the high standing attained by the medical branch of the University of Texas under his leadership as dean. His memory will be long revered by the great body of Texas alumni who were fortunate to be stimulated by his inspiring devotion to the advancement of scientific medicine.

Dr. Carter is survived by his wife; two daughters, Mrs. R. M. Wilkinson, Wellesley Hills, Massachusetts, and Mrs. H. C. Emery, Ann Arbor, Michigan; and a brother, J. S. Carter, Easton, Pennsylvania.

Dr. Lucius Minor Ellis of Houston, Texas, died July 8, 1944, at his home of heart disease.

Dr. Ellis was born September 3, 1878, in Hartsville, South Carolina, the son of John P. and Adella (Davis) Ellis. His academic education was received in the Coker College, Hartsville, South Carolina. His medical education was obtained in the Baylor University School of Medicine, Dallas, from which he was graduated in 1912. He lived and practiced in Millerton, Oklahoma, for four years and in Trinity County, Texas, two years prior to his location in 1914 in Houston, which was his home for the remainder of his professional life. Dr. Ellis was a member for several years of the Harris County Medical Society, State Medical Association and American Medical Association. He was also a member of the South Texas District Medical Society and the Houston Ophthalmological Society. He specialized in diseases of the eye, ear, nose and throat at Tulane University, New Orleans, in 1918 and had limited his work to that specialty for the remainder of his life. He was a member of the Baptist Church. He was held in high regard by all who knew him.

DR. L. M. ELLIS

Dr. Ellis is survived by his wife, the former Miss Georgia Stuckey of Bright Star, Arkansas, to whom he was married October 7, 1903. He is also survived by three sons, L. G. Ellis, and O. M. Ellis, Beaumont, and T. B. Ellis, Houston; two brothers, Dr. J. C. Ellis, McAllen, and C. H. Ellis, Hartsville, South Carolina; and two sisters, Mrs. Sarah I. Blackman, Hartsville, South Carolina, and Mrs. Verna B. Reed, Portsmouth, Virginia.

Dr. Charles W. Drake of Brownwood, Texas, died July 9, 1944, in a Brownwood hospital, of pneumonia.

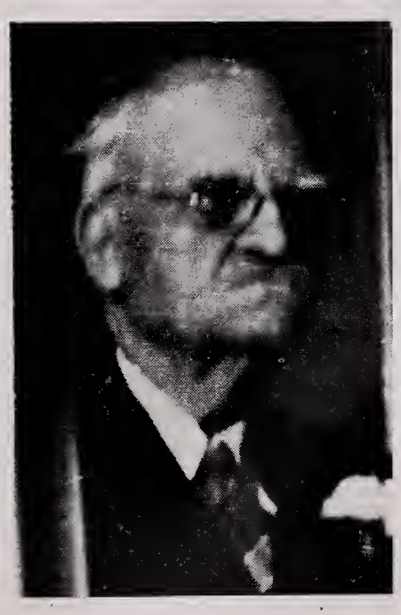
Dr. Drake was born May 25, 1872, in Castalia, Ohio. His academic education was received in the the University of Michigan, from which he was graduated in 1893. His medical education was received in the medical department of Texas Christian University, Fort Worth, from which he was graduated in 1910. After graduation, he served an internship in a Fort Worth hospital, following which he practiced in Fort Worth for two years. He then moved to Malone, Texas, where he was in practice for fourteen years. In 1927 he located in Brownwood, Texas, which was his home for the remainder of his professional life. For many years he had limited his work to the specialty of roentgenology. He was roentgenologist for the former Central Texas Hospital, Brownwood.

Dr. Drake was a member for several years of the State Medical Association and American Medical Association through the Tarrant County Medical Society while living at Fort Worth and the Brown County Medical Society during his residency in Brownwood. He was also a member of the Fourth District Medical Society. He was a member of the Methodist Church and a Mason.

Dr. Drake is survived by two sons, Fred C. Drake, Brownwood, and Joe B. Drake, San Antonio; and one brother, Ben H. Drake, Tracy, California.

Dr. John S. Taylor of Mt Pleasant, Texas, died June 19, 1944, at his home, of heart disease, following an extended illness.

Dr. Taylor was born at Simpsonville, Upshur County, Texas, in 1861, the son of Harve and Susan Taylor. His academic education was received in the schools of his community. His medical education was obtained in the University of Tennessee. He began the practice of medicine in Upshur County and later practiced at Cookville before his location in Mt. Pleasant in 1919, which was his home for the remainder of his professional life.



DR. JOHN S. TAYLOR

Dr. Taylor had been a member for many years of the Titus County Medical Society, State Medical Association, and American Medical Association. He served Mt. Pleasant as city health officer for several years. He was a member of the Masonic order. He was greatly beloved by the people of Titus County, to whom he had rendered many years of faithful service as a physician.

Dr. Taylor was married January 25, 1881, to Miss

Nancy Jane Thompson. He is survived by his wife; three daughters, Mrs. W. A. Ford, Mrs. P. O. Wilhite, and Mrs. Hayes Johnson, all of Mt. Pleasant; three sons, H. S. Taylor and J. A. Taylor of Dallas, and D. S. Taylor, Scottsville; two brothers, W. I. J. Taylor, Fort Worth, and A. C. Taylor, Winnsboro; and one sister, Mrs. Irvin Turner, Wetumka, Oklahoma.

Dr. Kevin David Lynch of El Paso, Texas, died June 2, 1944, at his home, of hypertensive heart failure.

Dr. Lynch was born February 21, 1886, in New York City, the son of Patrick J. and Mary Frances (McCarthy) Lynch. His academic education was received in the St. Peters College, Jersey City, New Jersey, from which he was graduated with the B. A. degree in 1907 and from which he received an M. A. degree in 1909. His medical education was obtained in Columbia University, New York, from which he was graduated in 1911. After graduation, he served an interneship and residency in pathology and surgery in St. Luke's Hospital, New York, from 1911 to 1913; was resident surgeon a tSt. Mary's Hospital for Children from 1913 to 1914, and assistant resident surgeon in the Sloane Maternity Hospital in 1914. He located in El Paso, Texas, in 1914, which was his home for the remainder of his professional life.

DR. K. D. LYNCH

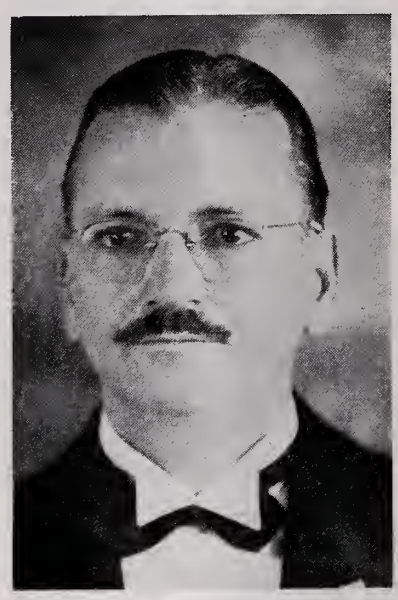
During the last World War, he served as a captain in the medical corps of the U. S. Army. He was consultant urologist of the Seventh Division of the American Expeditionary Force from 1918 to 1919.

Dr. Lynch was a member continuously in good standing throughout his professional career in Texas of the El Paso County Medical Society, State Medical Association and American Medical Association. He was attending surgeon at the El Paso County Hospital from 1917 to 1918. He was a member of the American Urological Association, and the Urological Correspondence Club. At the time of his death, he was president-elect of the Southwestern Medical Association. For several years he was chief of staff at Providence Hospital, and was a member of the staffs of that hospital, the Hotel Dieu, and the Southwestern General Hospital. He was a member of the Roman Catholic Church, and a Fourth Degree Knights of Columbus. He was a great lover of fine literature. He had a wide knowledge of the Southwest, its early history and background, and had a deep interest in its physical, political, and cultural development. Dr. Lynch was held in the highest regard by his medical associates for his professional ability, and was generally beloved by all who knew him. The high esteem in which he was held in El Paso is exhibted in the following excerpt from an editorial in the El Paso *Herald Post* on the occasion of his passing: "Dr. Lynch was a quiet and kindly man, adored by his family and loved by hundreds of friends. In the thirty years he had been an El Pasoan, he had won a warm place in the affection of his fellow citizens. They will keep green the memory of the skillful physician who was first and always a fine gentleman."

Dr. Lynch was married to Miss Florence Sennett of Butte, Montana, in 1916. He is survived by his wife; one son, Ensign Kevin David, Jr., U. S. Naval Air Corps, and three daughters, Gertrude Jehanne, Shirley Anne and Renee Frances. He is also survived by a brother, Joseph D. Lynch, San Francisco, California, and a sister, Miss Mary Margaret Lynch, Los Angeles.

Dr. Edgar Lane Tiner of Crystal City, Texas, died June 22, 1944, in a Crystal City hospital, of heart disease and uremia, following an extended illness.

Dr. Tiner was born September 24, 1903, in La Vernia, Texas, the son of Charles and Lydia (McBee) Tiner. His academic education was received in the public schools and the University of Texas at Austin. His medical education was obtained in the medical department of the University of Texas, Galveston, from which he was graduated in 1929. After graduation, he served an interneship in the Santa Rosa Hospital, San Antonio, following which he located in San Antonio for the practice of medicine, where he remained for two years. He then entered the medical corps of the U. S. Army and was stationed at Fort Bliss, El Paso, Texas, until November, 1937. In 1938, he took postgraduate work at the New York Polyclinic. He then located at Poth, Texas, where he was in practice for three years. In 1941, he located in Crystal City, which was his home for the remainder of his professional life.



DR. E. L. TINER

Dr. Tiner was a member of the State Medical Association and the American Medical Association through the Bexar County Medical Society while in practice at San Antonio, and through the Karnes-Wilson Counties Medical Society and the Nine Counties Medical Society during his practice at Poth and Crystal City, respectively. He was a member of Theta Kappa Psi medical fraternity. He was held in the highest esteem as a physician and he will be greatly missed by his community. He was a member of the Christian Church.

Dr. Tiner is survived by his wife, the former Miss Frieda Ann Bednarz, to whom he was married December 10, 1942, in San Antonio. He is also survived by his mother, Mrs. C. A. Tiner, San Antonio; and two brothers, J. L. Tiner, San Antonio, and E. J. Tiner, Dallas.

Texas State Journal of Medicine

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Vol. XL **October, 1944** **No. 6**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The Woman's Auxiliary Library Endowment Fund was established September 18, 1944, when a check for $1,000 was received in the office of the State Medical Association from the treasurer of the Auxiliary. The donors of this, the first endowment fund of the Auxiliary, are Mr. and Mrs. G. A. Ray of Pettus, Texas, who established this fund in memory of their daughter, Romayne Ray, who died September 12, 1941. The fund is to be known as "The Romayne Ray Memorial Fund."

Mr. and Mrs. Ray, who are the parents of Mrs. S. F. Harrington of Dallas, a past President of the Woman's Auxiliary to the State Medical Association, and Chairman of the Library Endowment Committee of the Woman's Auxiliary during the past year, addressed the following letter to the Committee when the donation was made, March 8, 1944:

"Please find a check for this fund as a memorial to our daughter, Romayne Ray, who passed away September 12, 1941.

Our doctor friends helped us in every way they could and we are grateful for their untiring efforts and especially for their friendship."

The Library Fund Committee of the Auxiliary, appointed by Mrs. A. B. Pumphrey, then President of the State Auxiliary, and composed of Mrs. S. F. Harrington, Dallas, Chairman; Mrs. Charles Bailey, Ballinger; Mrs. M. C. Carlisle, Waco; Mrs. Ralph Cross, Texarkana; Mrs. C. R. Hamilton, Houston; Mrs. Max Johnson, San Antonio; and Mrs. Orville Egbert, El Paso, gave the following report:

"The Library Fund Committee reports that on March 8, 1944, Mr. and Mrs. G. A. Ray of Pettus, in memory of their daughter, established our first endowment fund of $1,000, to be known as "The Romayne Ray Memorial Fund."

The Library Fund Committee of the Auxiliary further reports that,

"In October, 1944, through donations contributed by all the presidents who have served the Woman's Auxiliary, plus donations generously made by those husbands of Auxiliary presidents who have served as president of the State Medical Association, the second endowment fund was established. This fund, consisting also of $1,000, is to be known as "The Presidents' Library Endowment Fund."

"The past presidents of the Auxiliary and the present president, in making their donations, expressed deep appreciation for this opportunity to show in a new and invaluable way their interest in the work of the doctors of Texas and their pleasure in being privileged to help foster and distribute the widest obtainable knowledge for the alleviation of human suffering.

To this committee, and especially to its chairman, Mrs. Harrington, must be credited the distinction of this outstanding service to the development of the Library of the State Medical Association. It is only by such endowments that a great medical library may be developed which will serve every reputable doctor of medicine in Texas, wherever he may be, with the latest advancements in medicine, which he in turn will thus be privileged to make available to those whose lives depend upon his skill and knowledge.

Mr. and Mrs. Ray have done a noble thing for humanity in their gift, and have enshrined the memory of their daughter in a most fitting and useful purpose that will carry on in the saving of other lives.

The Presidents of the Auxiliary have memorialized their individual and collective achievements by the establishment of this library fund and have engraved their names afresh in the grateful appreciation of the State Medical Association.

We congratulate the donors, the Committee which secured the donations, and the Woman's Auxiliary for its part in support of this all important educational activity of the State Medical Association of Texas.

County Medical Society Revivals are very much in order, now that the summer vacations are behind us, and important matters will need to be dealt with in the very near future. It is appreciated that while the preoccupations of summer vacations, if any, are probably more than matched by the preoccupations of practice, one of the main reasons for summer vacations, namely, the heat (if not the humidity), is absent, and we should be able to take time out for the very important work of our county medical societies and the State Medical Association. If we don't do something of the sort, it may easily be the case that in a few months, or in a few years at the most, all of these troubles will no longer be ours. The government will take care of them for us. If we are ready and willing, and anxious enough, we can assume these troubles and expect to have them with us, like the poor, from here on out, and certainly that will be better than the alternative just mentioned. Perhaps we can live long and prosper after a fashion, without the troubles to which reference is had here, but that would be a "Freedom" devoutly to be avoided. Indeed, a number of "Freedoms" now in prospect are of doubtful promise in the matter of accomplishment and personal satisfaction.

Neither socialized medicine, which term we use because it is well understood, and not because that is exactly what we are talking about, nor any seriously restrictive legislation will ever become facts if the rank and file of the medical profession will with understanding wholeheartedly support our leaders now so forcefully contending against such things. Obviously no such support can be forthcoming except there is understanding, and in the absence of study and exchange of ideas one with the other, there can be no real understanding among us. All of which is our circuitous way of saying that we had better see to it that our county societies are activated at once and plenty.

We appreciate fully that a good many of our county medical societies are handicapped by a depletion of membership because of the war, and all of them are handicapped by overwork because of the wartime shortage of physicians, which is all the more reason why we should gird our loins, close up the ranks and get on with the fight. The enemy is strong in numbers and strongly entrenched behind the bulwarks of apostasy and alleged liberalism (which is not liberalism at all, certainly not the kind which results in mutual freedom). We may get caught in the tide and thus be compelled to go along, but if we are wise we can drift into satisfactory channels, perhaps of our own shaping. That will take thought, and planning, and action. It is up to the county medical society, by and with the help of its leaders on the state and national levels.

Perhaps the first requisite is a careful check on our county society legislative committees. No matter whether there are enough members in a county society to more than make a legislative committee, and no matter how busy those of our number who are adapted to such activities may be, there should be strong committees throughout the state, determined to see to it that not only our legislators, but our people as well, and even doctors themselves, are informed as to fact and inspired to action. Perhaps one reason why our doctors are not overly active or persistently so, is the fact that we are not asking anything for ourselves, but for the welfare of the dependent public. A collateral fact is the fear that we will be accused of selfish interest in our legislative activities, an interest, incidentally, to which we have a perfect right, and for which we need not, as a matter of fact, offer any apologies at all. It is interesting to speculate as to whether this feeling is evidence of an inferiority complex, or whether we fear that our friends in and out of the Legislature should take our word about such matters, as our patients accept our word in the sick-room and in the office. There is a difference, of course, but we can no more be rid of our responsibility for protective health legislation than we can be rid of responsibility for protecting the health of our patients. The fact that we don't get paid for it, or that it is a bother, or that we are criticized for it, has nothing to do with it. We expect all of that, and in closing the thought, we express the opinion that if our doctors would seek to protect our people as a group with the same intelligent zeal and understanding that they seek to protect their patients, all would be well.

Of course, there follows all of the requisites of re-education, which means, so far as the county medical society is concerned, the frequent exchange of information, ideas and experience so pertinently provided by an active and well directed medical society, whether

county or district, or even of a state-wide or national sort.

It is said that nothing succeeds like success. People will pay attention to a live-wire organization, where it will look askance at dead wood. Pine knots full of resin burn brightly and attract attention. Punk burns but it does not attract attention. If we would propagandize the public in the interest of its own health, we must get the attention of the public, a hard thing to do in this day and time, but it is possible. Of course, the task is more difficult if there are those among our own group who stand out against policies we have agreed upon as protective measures. Like the snag in the stream, they merely succeed in collecting around them enough driftwood to set up a sort of dam, with the result that there is either stagnation or flood.

The Legislative Committee of the State Medical Association will very shortly be asking for help, and our Committee on Public Relations will be doing things. We should be ready—and willing.

Motion Picture Lending Library Acquires New Film.—Through the courtesy of E. R. Squibb and Sons, a print of the new 16 mm. sound motion picture film in color, entitled, "Modern Nutrition—A Clinical Symposium," has been placed in the Library of the Association, 1404 West El Paso Street, Fort Worth, for an extended period of time, for relending to professional audiences.

The film was produced by E. R. Squibb and Sons in collaboration with the Committee on Food and Nutrition of the National Research Council, and the Food Distribution Administration of the U. S. Department of Agriculture in collaboration with the U. S. Public Health Service. The following brief descriptive synopsis was furnished on request:

"The print is about 1,700 feet in length, on one reel, and describes the diagnosis, therapy and economic aspects of malnutrition, as presented by Drs. Tom D. Spies, Norman Jolliffe, W. H. Sebrell and Robert Goodhart, whose contributions to the field of nutrition are more or less familiar to every physician.

"Dr. Jolliffe discusses problems involving diagnosis. Dr. Spies offers suggestions concerning therapy, based on his experience at the Nutrition Clinic of the Hillman Hospital, Birmingham, Alabama; and Drs. Sebrell and Goodhart discuss economic aspects, as seen through their broad experience with the U. S. Public Health Service and related governmental agencies."

This film is an unusually fine acquisition for the Motion Picture Lending Library, and should prove exceedingly popular with county medical societies throughout the State during the coming months. It is hoped that extended use will be made of it by program committees of county medical societies. Appreciation is expressed herewith to E. R. Squibb and Sons for this contribution to the Library.

A Real Child Health Program for Texas has been launched by the Medical Branch of the University of Texas, with the financial support of the William Buchanan Foundation. An article outlining the purposes, procedures and objectives of the movement appears elsewhere in this number of the JOURNAL (p 338). The article was written by the director of the program, Dr. Arild E. Hansen, who is also chairman of the Department of Pediatrics at the Medical Branch in Galveston. We are interested in this program not only because it promises to accomplish much in an important field of public health and welfare, but because it will be administered in close coöperation with the medical profession of Texas, and with all due respect not only to the art and science of medicine and its principles of ethics, but realistically.

All too frequently we find movements of the sort conceived, launched and operated from purely an idealistic platform and with little consideration of practicalities. Somebody leaves a lot of money to carry out an ideal and do a lot of practical good. The money is turned over to a board of directors, the members of which have little knowledge of the circumstances involved, and therefore must appeal to those who do have such knowledge; and very frequently those who have such knowledge are impractical and idealistic to a subversive extent, considering what must be done to attain the objective of the benefactor concerned. We hardly need to set up examples illustrating the point. Hardly a reader but who can remember being called upon to either render medical service under conditions utterly distasteful, or else refuse to render a service apparently in the direct line of his professional obligations.

In the case of the William Buchanan Foundation, the desires of the donor are being directed by a distinguished surgeon, Dr. Stanley J. Seeger, now of Texarkana, Texas, whose wife is the daughter of William Buchanan, the founder. Dr. Seeger has been Chairman of the Council on Industrial Health of the American Medical Association for a good many years. He knows what it is all about, and what to do about it all. Certainly he (and the State University) has made a good start in the selection of Dr. Hansen to direct the program. Dr. Hansen is an accomplished pediatrician, and knows the language and all the little movements. He will get along with the medical profession, and the medical profession will get along with him.

We go to such length in considering the source of this movement and its direction, for the reason that we are anxious that the

medical profession of Texas do something about it, in that it has a chance, and a good chance. We are not particularly interested in praising anybody, in this or any other connection, at least not right now.

It will be noted from the article referred to above, that the program involves special study of the health of children during the undergraduate years of the student of medicine, and through the years of his practice. Certainly a doctor, whether or not specializing in pediatrics, should know as much as possible about the health of children, in view of the preponderance of that service in general practice, and the stress that is laid upon it in the specialty of pediatrics.

The educational features of the problem will find warm support in Texas. The pediatricians of this State appear to be tops. They have set up their specialty in a vigorous, intelligent and forceful manner. They do not seem to begrudge the amount of practice on children that the general practitioners of the State do, and are content to care for the share of this practice which comes to them naturally and in line with ethical practices. This fact constitutes a cohesiveness which will mean much to the directors of the program under discussion. Again we must say that we are interested in this feature of the program rather than in praising the group.

It is proposed that the program eventually, and perhaps soon, be extended to other teaching institutions, and certainly to organizations throughout the State interested in the problem of child health, including medical societies, tuberculosis societies, parent and teacher clubs, state board of health, state department of education, and so on down the line. A council has already been set up, the chief function of which is to study and know the problems of child health, and help in integrating the activities of the various groups and individual activities in the movement. Again we commend the program to the favorable consideration of the medical profession of Texas.

ANOTHER BENEFICIAL USE FOR PENICILLIN

Reporting five cases in which they say they obtained "brilliant results" with penicillin, William M. M. Kirby, M. D., and Virgil E. Hepp, M. D., San Francisco, say in *The Journal of the American Medical Association* for August 12 that the results "would seem to justify the hope that the present high mortality rate in cases of acute, subacute and chronic osteomyelitis of the facial bones will be drastically reduced when supplies of penicillin become generally available." The condition is one of the most serious complications of sinusitis. In contrast to the sulfonamides, they say, pencillin prevents further spread of the infection so that the involved bone may be surgically removed.

CONTINUOUS CAUDAL ANESTHESIA WITH AN IMPROVED GRAVITY DRIP METHOD

MAJOR JAMES M. SIEVER, M. C.
Army of the United States
FORT SAM HOUSTON, TEXAS

Lemmon in 1940 introduced a brilliant advance in anesthesia, that of continuous spinal anesthesia. In 1942, Hingson and Edwards[2] adapted Lemmon's technic of continuous spinal to caudal anesthesia. We have used continuous caudal anesthesia in our clinic since August, 1942. Since that time we have managed 1,500 cases using this technic. A breakdown of this group may be seen in the following table:

TABLE 1.—*Types of Obstetric Cases in Which Caudal Anesthesia Used.*

Number of pregnancies	1,500
First pregnancy	1,220
One or more pregnancies	280
Complications	
Breech presentation	52
Posterior position	180
Spontaneous rotation	62
Forceps rotation	118
Multiple pregnancies	5
Posterior face	1

Three types of solution were used:* Procaine hydrochloride 1.5 per cent, 900 cases; metycaine 1.5 per cent, 500 cases; pontocaine .25 per cent, 100 cases. These solutions were prepared using normal saline as the diluent. In this series, 1,236 cases were managed without any other type of analgesia except barbiturate premedication. In 192 cases it was necessary to supplement caudal anesthesia with other analgesics such as morphine and hyoscine and the barbiturate in the first stage of labor. In these cases, caudal anesthesia was used only for the terminal portion of the first stage and for delivery. These cases will be discussed later. Thus, 1,428 cases were delivered successfully under caudal anesthesia without any supplemental anesthesia at the time of delivery. In the remaining 72 cases caudal anesthesia failed completely for the following reasons:

1. The needle was inserted into the subarachnoid space, 4 cases.
2. Hysterical patients became unmanageable.
3. Disproportion of the head and pelvis with prolonged labor.
4. Insertion of the needle into the caudal canal was technically impossible, 4 cases.
5. A psychotic patient who was completely disoriented and could not be managed.
6. The catheter slipped out in three cases where technic of taping was faulty.
7. Severe nausea and vomiting.

From the Section of Obstetrics of the Surgical Service of Brooke General Hospital, Fort Sam Houston, Texas.
Read before the Section on Obstetrics and Gynecology, State Medical Association of Texas, San Antonio, May 4, 1944.

*AUTHOR'S NOTE.—The metycaine used in the series of cases reported was supplied through the courtesy of Eli Lilly Company; and the pontocaine and novocaine were supplied through the courtesy of Winthrop Chemical Company.

8. Severe radicular pains.

As I have stated, three drugs were used in this series. After experience with these drugs we prefer the use of procaine hydrochloride in normal saline. The advantage of this drug may be seen in table 2.

Continuous caudal anesthesia should not be used in: (1) Cases of placenta praevia and abruptio placentae; (2) cases of disproportion between the head and pelvis; (3) gross abnormalities of the spine in the lumbosacral region; (4) patients who have had recent surgery about the sacral area, such as a pilonidal cyst excision; (5) patients with any skin disease or with multiple boils or carbuncles; (6) patients who give a history of sensitivity to procaine; (7) very obese patients where the landmarks are not palpable.

It has been our policy when patients are admitted to the hospital to divide them generally into three groups:

Group 1—Multiparas.

Group 2—Primigravidas, where the cephalus was engaged, the cervix well effaced, and where labor is progressing normally.

Group 3—Primigravidas, where the cephalus is not fully engaged and where the progress of labor is slow and contractions are severe enough that the patient must have relief.

TABLE 2.—*Advantages and Disadvantages of Drugs Used in Caudal Anesthesia.*

Agent	Advantages	Disadvantages
Procaine—900 cases 1.5% in normal saline	1. Least toxic to mother 2. Less nausea and vomiting 3. Least toxic to baby (clinical impression) 4. Least blood pressure drop 5. Less motor paralysis (patient may move by herself in many cases)	1. Shorter duration of anesthesia (about 55 min. for 20 c.c.) 2. Longer delay (about 10 min.) for anesthetic to take effect
Metycaine—500 cases 1.5% in normal saline	1. Longer duration of anesthesia (about 1 hr. for 20 c.c.) 2. More rapid anesthesia (within 5 min.)	1. More nausea and vomiting 2. More toxic to mother 3. More toxic to baby (clinical impression) 4. Greater blood pressure drop 5. Complete motor paralysis
Pontocaine—100 cases .25% in normal saline	1. Practically no nausea and vomiting 2. Long duration of anesthesia (2-4 hrs. after 20 c.c.) 3. No toxicity to baby (clinical impression from very short series of cases)	1. Longest delay for anesthetic to take effect (about 30 min.) 2. Complete motor paralysis 3. Difficult to keep level of anesthesia at constant level due to prolonged latent period of action of the drug (in one case anesthesia persisted for 5 hrs. after injection was stopped)

In the first two groups caudal anesthesia may be started as soon as the patient needs relief from pain. As long as the patient is in labor progress is not impeded and labor proceeds rapidly to termination. In the third group caudal anesthesia must not be started too early. It should not be started in this group until the patient has progressed to 6 to 7 cm. dilation with engagement of the head. If the caudal is started before this time, the head usually fails to descend into the pelvis and progress of labor practically ceases. If the caudal anesthesia is started before these conditions are met in this group of patients, it will often be necessary to discontinue the caudal anesthesia. From the patient's point of view it is not desirable to have complete anesthesia for a period of time and then suddenly experience the excruciating pain of the terminal portion of the first stage of labor. Therefore, it is most important that this group of patients be recognized and the administration of caudal anesthesia be delayed until the head is engaged and dilatation of the cervix is well advanced. As mentioned above, we allow the first two groups of patients to ask for the anesthesia when they believe they need relief. The third group is managed by an entirely different method. When their pains become severe they are given a barbiturate and/or morphine and hyoscine. They are managed with these drugs until the above mentioned conditions have been met, at which time caudal anesthesia is administered. By the time delivery is imminent the general analgesics have been dissipated, and at delivery no depressing effect is noted upon the child. In our enthusiasm over caudal anesthesia other methods of analgesia should not be forgotten, for in many cases the combination of the two methods result in a better management of labor than either method alone.

In all of our patients we have found that the second stage of labor is greatly altered. The alteration is due to two factors:

1. The patient has no desire to bear down because of anesthesia of the pelvic structures.

2. Relaxation of the pelvic floor and perineum.

Anesthesia of the pelvic structures results in the patient having no desire to bear down, and if the physician is not watchful the head may impinge upon the perineum for hours. The normal mechanism of rotation and flexion is also impeded by the relaxation of the pelvic floor. The combination of these two mechanisms may result in a second stage so prolonged that permanent damage may be done to the baby if the labor is not terminated by the doctor. It is our belief that more than two hours on the perineum is dangerous to the welfare of the infant. For this reason we routinely perform an episiotomy and utilize outlet forceps in the delivery. In these series of cases persistent pos-

terior presentation occurred in 12 per cent. This high percentage of persistent posterior presentations is attributed to the relaxation of the pelvic floor, with the resultant failure of a large number to rotate. We have managed 52 breech presentations under continuous caudal anesthesia. Due to the relaxation of the pelvic floor no difficulty has been experienced in delivery of the aftercoming head and progress of labor was normal. Nine sets of twins have been delivered under continuous caudal anesthesia. In all of these labors normal progress was observed and delivery was simplified.

In the management of the third stage the uterus should not be manipulated until separation of the placenta takes place; then gentle traction may be made on the cord and, placing the other hand on the abdomen, the uterus is gently pushed upward with the thumb; thus the uterus is pushed away from the placenta. When this maneuver is completed the placenta will be in the vagina, and a gentle push on the uterus in order to make it act like a piston will deliver the placenta. Gentleness cannot be stressed too much in these maneuvers; otherwise, tetany of the uterus will result with retention of the placenta. Delivery by Crede's method should never be attempted. The third stage of labor is shortened and hemorrhage is less than when general anesthesia is used.

EFFECT UPON THE BABY

Our fetal mortality was 38 deaths, or 2.6 per cent. Reference to table 3 will show the causes of fetal death.

TABLE 3.—*Causes of Fetal Death in Obstetric Cases Under Caudal Anesthesia.*

Premature (less than 30 weeks)	18
Stillborn (dead before admission to hospital)	8
Stillborn (cause unknown; babies viable on admission to hospital and expired before delivery—all autopsied)	5
Monstrosities	5
Cerebral hemorrhage	2

Irregularities and slowing of the fetal heart rate occurred shortly after the first injection of the solution in 20 per cent of the cases in the series in which procaine was used. This was also noted in 60 per cent of the cases in which metycaine was used. In succeeding injections only 1 per cent showed irregularities in the fetal heart rate when procaine was used, while 20 per cent showed irregularities when metycaine was used. In these cases where the irregularities and slowing occurred with subsequent injections, there was also noted large quantities of meconium. In 5 cases in the latter group the babies were stillborn, the autopsy revealed no findings except diffuse edema of the brain. One of these fatalities occurred in the procaine series, and four of them in the metycaine series. In one case the fetus died in utero five minutes after the third injection. Within two minutes after the injection the fetal heart became irregular and gradually weaker until it completely stopped. All of the above mentioned stillborns died in the first stage of labor. Prior to our use of caudal anesthesia we had only one full term stillbirth in 1,500 cases at this clinic. As compared to five in this reported series, all of the deaths mentioned above occurred in cases where the babies were alive when the patients entered the hospital, the deaths occurring during labor and before delivery. This is a small series of cases and no definite conclusions can be drawn, but it is our impression that these deaths were a direct result of the drugs used. Since these cases in which procaine was used showed less fetal distress, we believe that procaine is a safer and less toxic drug from the standpoint of the baby than any other drug used.

COMPLICATIONS

The complications attending this type of anesthesia may be grouped under five headings:

1. Infection.
2. Injection into the subarachnoid space.
3. Circulatory collapse.
4. Sensitivity to the drug used.
5. Miscellaneous.

Infection is the most serious of these complications. We have had two such infections, one of which completely cleared up under sulfonamide therapy. In the other case, a laminectomy was performed and the patient was found to have an arachnoiditis. Adhesions were broken up and nerve roots freed. This patient is gradually recovering and at the present time has regained bladder function and the use of her legs, but prognosis is guarded. Rigid aseptic technic is constantly observed. In addition, the location of the injection should be carefully prepared. We advocate the use of soap and water, followed by alcohol and ether. The part is then painted with an antiseptic solution.

Injection into the subarachnoid space is a danger which can be avoided when certain precautions are taken. If the small indwelling needle is used, a test dose of 8 cc. of solution should be used prior to each injection because the needle may slip in and out or move from side to side and become lodged in the dura between injections. In addition to the above precautions, the test developed by Block and Rotstein[1] in conjunction with the continuous drip method is of value.

If the indwelling catheter is used, the aspiration technic is of more value due to the large lumen of the needle. In our cases we have used both the aspiration technic and the

continuous drip test of Block and Rotstein.[1] When the dura is penetrated the needle should be withdrawn and the labor managed by some other method. Circulatory collapse can be avoided by premedication with ephedrine, gr. 3/8, and seconal, gr. 1½. If the systolic pressure falls below 100 mm. of mercury, it is advisable to give ephedrine subcutaneously or intravenously. If the patient is properly prepared by premedication, this is necessary in only a small percentage of cases. Five minims of epinephrine per 100 cc. is used in the anesthetic solution and by its vasoconstricting action delays the absorption of the agent, thus prolonging its action locally. The epinephrine in the solution also prevents the sudden blood pressure fall incident to induction of caudal anesthesia and hence contributes to the well-being of the patient.

In our clinic we have observed only one case of sensitivity to the drug used. Other clinics have reported a larger percentage of these cases. It is our practice to give premedication of one of the barbiturates to all of our patients as an assurance against reactions. Sodium amytal should be kept available for immediate administration if any symptom of sensitivity is noted.

Bladder Dysfunction.—In 4 per cent of the 900 cases in which procaine was used the patients required catheterization after delivery. Two per cent of these patients required catheterization more than once. In 15 per cent of the 500 cases managed with metycaine the patients had to be catheterized after delivery and 5 per cent of these required catheterization more than once. In 3 cases in which metycaine was used the patients did not void spontaneously for over two weeks, and in one case it was necessary to continue catheterization for four weeks. It is our impression that this difference in the incidence of bladder dysfunction is an indication of the greater toxicity of metycaine. The bladder should be emptied before anesthesia is started and distention avoided throughout labor.

Nausea and Vomiting.—It will be impossible to completely alleviate nausea and vomiting in all patients, as it is well known that patients under any type of analgesia will have these symptoms during the course of labor. However, we have been able to reduce this symptom to a minimum. This reduction has been brought about by the use of a gravity drip. Before using the gravity drip 25 per cent of our cases developed nausea and vomiting during the anesthesia. This has been reduced to less than 10 per cent in the cases where the drip is used.

In the 1,500 cases managed at this clinic there has been no maternal mortality.

COMPARISON OF METHODS

INDWELLING CATHETER METHOD[5]

Advantages:

1. There is less trauma to the caudal canal because of the flexible catheter which will not tear blood vessels and structures in the canal.

2. The patient is more comfortable; she may move from side to side with impunity or lay on her back with no fear of breakage or trauma.

3. There is less chance of infection due to the fact that the catheter is sealed in place with waterproof tape so that discharges cannot reach the site of the injection.

4. Patients are easier to handle; it is not necessary to keep them in any one position, and they may be moved into any position without fear of breakage or trauma.

5. Unilateral anesthesia is nil as it is not necessary to keep the patient on her side throughout labor.

Disadvantages:

1. Technical.—In other clinics it has been reported some difficulties have arisen in inserting the 15 gauge needle through the sacral hiatus. We have had only 4 cases in which it was impossible to insert the needle into the canal.

2. Trauma.—With the use of the 15 gauge needle more trauma is experienced by the soft tissues but this is more than compensated for by the insertion of a flexible catheter for the duration of labor.

INDWELLING NEEDLE TECHNIC

Advantages:

1. There is less trauma to soft tissues due to the insertion of a smaller needle.

2. Simplicity. The needle is inserted and left in place.

Disadvantages:

1. The needle may break.

2. The needle may slip out of place, either into the dura or completely out of the canal.

3. The patient must be kept on her side all during labor which is uncomfortable for her and makes nursing care difficult.

4. There are more chances for infection as it is impossible to seal the needle in place and to keep it from slipping in and out of the canal.

5. There is more trauma to the caudal canal as with each movement of the hub of the needle the point will sweep through a large arc, which may tear blood vessels and even the dura.

6. There is an increased incidence of unilateral anesthesia as the patient must be kept on her side throughout labor.

INDWELLING CATHETER TECHNIC

1. The patient is placed on the right side in a modified Sims' position and close to the side of the bed.

2. The lumbo-sacral region is scrubbed with soap and water, followed by alcohol and ether. Tincture of merthiolate is then applied to the region and sterile drapes are put in place.

3. Procaine hydrochloride, 1.5 per cent solution, is prepared by adding the contents of two 5 cc. ampules of 20 per cent novocaine (Winthrop) to 125 cc. of sterile isotonic saline.

4. A skin wheal is raised over the sacrococcygeal ligament. A 15 gauge needle is passed through the skin wheal and is advanced through the sacrococcygeal ligament. After the tip of the needle comes in contact with bone on the anterior border of the caudal canal, the needle is rotated 90 degrees to bring its bevel against the bone. The hub is depressed and the needle is then advanced about 1 inch (2.5 cm.). A glass syringe containing 25 cc. of the anesthetic solution is attached to the needle and 1 or 2 cc. of the anesthetic solution is injected to clear the needle of any obstruction. The plunger is withdrawn gently in order to make sure the tip of the needle is not lying within the lumen of a blood vessel or within the subarachnoid space; 25 cc. of the anesthetic solution is then injected slowly into the caudal canal.

5. As soon as the initial dose has been injected the syringe is detached from the needle and a No. 4 French nylon ureteral catheter, which has been sterilized in an autoclave, is passed through the needle and is advanced until the tip of the catheter is approximately 1.5 inches (3.8 cm.) above the sacral hiatus; the needle is then removed over the catheter.

6. The catheter is padded with sterile gauze at the point of entrance into the skin, brought over the patient's back to her flank, and the entire region is sealed with waterproof adhesive tape to prevent soiling from the perineum.

7. The patient may now be turned on her back and made comfortable in any position that she desires.

8. A gravity drip is attached to the catheter and is set to deliver 20 cc. per hour. If at the end of an hour the level of the anesthesia is too high or too low, the drip may be either increased or decreased proportionately.

The gravity apparatus used at this clinic combines all of the advantages of the multiple injection method with that of the continuous drip used by Block and Rotstein.[1] This gravity apparatus is an intermittent drip rather than a continuous drip. By its use the administration of the anesthetic agent is greatly simplified. It also has the advantage of a completely closed system, thereby making the technic completely aseptic.

A glass cylinder graduated in cubic centimeters is interposed between the Murphy drip and the main reservoir containing the anesthetic solution. This cylinder receives the solution from the main reservoir and subsequently delivers it to the Murphy drip.

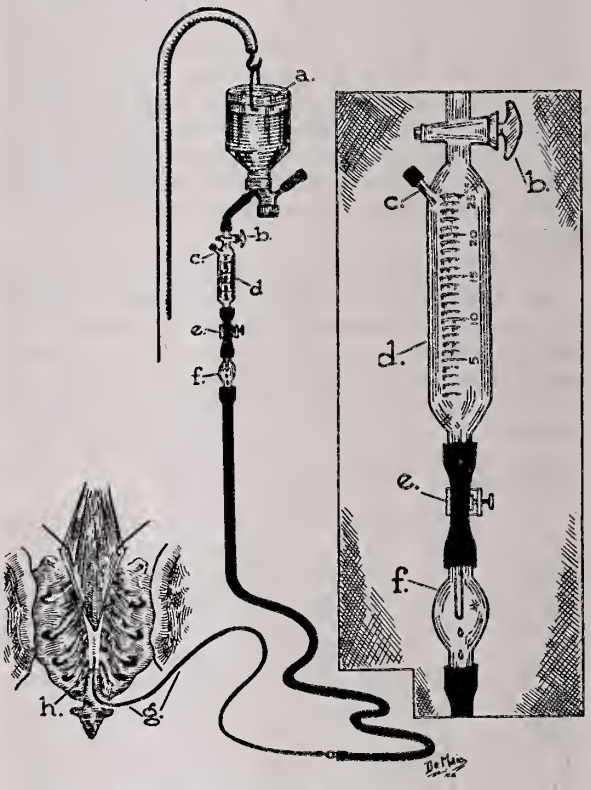

FIG. 1. Apparatus: *a*, main reservoir; *b*, stop cock; *c*, air vent with filter; *d*, graduated glass cylinder with regulation clamp *(e)* to regulate number of drops per minute; *f*, vacuum drip; *g*, nylon number 4, ureteral catheter; *h*, sacral hiatus.

At hourly intervals 15 to 25 cc. of the solution, depending upon the level of the patient's anesthesia, is turned into the cylinder. During the succeeding hour the cylinder is slowly emptied by the gravity drip, allowing the solution to run into the caudal canal. By using this modification it is possible to combine the advantages of the multiple injection method with that of the gravity method. A definite amount of solution may be given at required intervals, yet may be given slowly by gravity. (Fig. 1.)

We prefer the use of the gravity drip for the following reasons:

1. Placement of the catheter in the soft tissue overlying the sacrum is easily detected since pressure over the sacrum stops the flow of the anesthetic agent through the drip apparatus.

2. The chances of infection are decreased because of a completely closed system.

3. It is the most simple type of apparatus.

4. The level of anesthesia is relatively constant. With other methods the level of anesthesia is constantly rising and falling.

5. There is a reduced volume of agent and pressure in the caudal canal which, together with (4), we believe accounts for the decreased incidence of nausea and vomiting obtained with this method.

6. The total amount of anesthetic used is less. In our 600 cases, using the drip method, the amount of solution used per hour to keep the level of anesthesia at the umbilicus was 25 per cent less than in our previous series.

7. Using our modification it is possible to obtain all of the advantages of both the multiple injection and gravity methods.

CONTINUOUS CAUDAL ANESTHESIA IN ECLAMPSIA

In previous communications[6] we have reported cases of eclampsia which were managed under continuous caudal anesthesia. In eclampsia this technic produces vascular dilatation of the lower half of the body, producing a dramatic drop in blood pressure, relieving many of the symptoms of eclampsia. It should not be looked upon as a curative procedure and it should be remembered that even though the patient's symptoms are improved that the underlying disease is still present. The following is a resumé of the history of one of the cases which we previously published:

The patient's blood pressure measured in millimeters of mercury was 150 systolic and 110 diastolic on admission. An attempt was made to quiet her with sedation, but her condition failed to improve. Later, on the day of admission, blindness developed suddenly. At this time the membranes ruptured and the patient went into active labor. One hour after labor started, she had a convulsion lasting two minutes and went into coma. The blood pressure at this time was 200 mm. systolic and 120 mm. diastolic. Three hours after labor started, continuous caudal anesthesia was begun. The systolic blood pressure immediately dropped to 130 mm. and the diastolic to 90. The patient came out of the coma and was rational for the first time in four hours. The headaches and dizzy spells that she had complained of all day were gone and she stated that she felt fine. The blood pressure remained less than 150 mm. systolic and 90 diastolic throughout the entire course of labor and the patient was delivered of a normal living child. She did not have any more convulsions nor did she return to coma. In eclamptic patients the blood pressure should be watched closely as a large drop in blood pressure is the rule.

CONCLUSIONS

1. Continuous caudal anesthesia is a valuable adjunct to other methods of anesthesia available to the obstetrician.

2. As continuous caudal anesthesia necessitates a larger percentage of operative deliveries, it should be used only by a competent obstetrician who is well trained in all types of operative technics.

3. Operative deliveries are greatly facilitated by the complete relaxation of the perineum.

4. A small percentage of cases show fetal distress after injection of the anesthetic agent. In a few cases this has proved fatal to the fetus. The fetal heart rate should be checked frequently during labor, and at the first sign of distress, the anesthesia should be discontinued or labor terminated.

5. It has been our experience that procaine will give the desired results with less toxicity to both the mother and the baby. Therefore, we see no reason for using a more toxic drug.

6. One of the great advantages of continuous caudal anesthesia is that there is no respiratory depression of the baby.

7. Continuous caudal anesthesia has proved of value in the management and control of symptoms in eclampsia.

8. Continuous gravity administration has proven to be a great technical advance in continuous caudal anesthesia.

9. All patients should receive premedication with a barbiturate. In addition, it is advisable to give each patient, as premedication, 3/8 gr. of ephedrine to alleviate the possibility of circulatory collapse.

10. The indwelling catheter technic is safe, less traumatic, and more comfortable to the patient.

11. Absolute asepsis must be observed at all times.

Appreciation is herewith expressed to *The Journal of the American Medical Association* for permission to reproduce here the illustration and tables showing the apparatus employed and the comparison of drugs and methods, which previously appeared in the June 12, 1943, number of that publication.

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ABSTRACT OF DISCUSSION

Dr. Julius McIver, Dallas: I want first of all to compliment Major Siever for his interest in this procedure and for the excellent manner in which he has presented his findings.

My first impression of caudal block anesthesia in obstetrics was that it was a job for a young obstetrician. That impression has remained with me. My enthusiasm has been up and down many times. When I was able to relieve all the pain of a woman in labor and make the delivery easy for her as well as myself my enthusiasm was at its height. When I failed to get into the canal my enthusiasm was low,

and when on two occasions I gave the anesthetic agent directly into the blood stream and a convulsive seizure occurred, for a very short time I was in a state of collapse. The convulsive seizures lasted only a very short time and no harm came of them.

That this method of anesthesia is technical there can be no doubt, and all the "don'ts" have been pointed out time and again. If some person fails to observe these "don'ts" he will have a high percentage of failures or some unpleasant experiences that could have been avoided.

I want to stress one or two points that Major Siever made: first, about leaving the uterus alone until the placenta has separated. I have thought for years that manipulation of the uterus under general anesthesia was wrong. Even the slightest pressure would interfere with the normal separation and with the caudal block anesthesia it is very obvious that manipulation is wrong, and even investigative feeling should not be done in these patients where the uterus is extra sensitive. Blood loss is at a minimum and there is no need at all for squeezing the uterus. Another point is that the head should be engaged in primipara before beginning the anesthesia.

I can make no statement about any drug except metycaine. I have not used any other. I have had no maternal troubles of any consequence. I do not attribute all the catheterization to the caudal block. Parturient women have always had to be catheterized. I shall admit that there is evidence that this agent has caused bladder distention in certain cases. The difficulties I have had are technical, and difficulties that can be overcome with experience.

The medical profession has always been slow to accept something new and more especially if lay impressions color their opinion. Caudal block anesthesia is not comparable to any of the other agents used in recent years for the relief of pain in labor. If the needle is properly introduced it will relieve all pain. This was not done with other agents that came into use in recent years. I have had no experience with any technique except the Hingson-Edwards method, and I have hoped to continue until I was more expert with it before I attempted other methods.

It is a time consuming procedure for obstetricians working as most of us are today, and in my opinion should be carried out with the closest cooperation between the anesthetic department and the obstetrician. With the ending of the war and more help available I predict a more extensive use of this method for the relief of pain, both in surgery and obstetrics.

Dr. James E. Harkins, Dallas: I should like to ask Major Siever what method of catheterization he employed in the cases of bladder atonia following continuous caudal anesthesia. We have found the indwelling catheter with intermittent drainage to be efficacious in these cases. We have employed caudal anesthesia in selected obstetrical cases since August, 1942. We first used the single injection for delivery only. Since January, 1943, we have employed the method as demonstrated by Hingson and Edwards. We have also used continuous caudal anesthesia in pelvic surgery and for cesarian section. Continuous caudal anesthesia has a definite place in obstetrics. It has been employed to advantage in cardiac cases, in toxemias, and in pulmonary complications. It is also believed to be of value in premature labors since it eliminates the use of morphine and barbiturates. One of the disadvantages of this method of anesthesia is the time consuming factor. In two cases the needle penetrated the dura, producing spinal anesthesia. In neither case was spinal fluid aspirated prior to the initial injection of the anesthetic agent. In one case a cellulitis developed at the site of injection. Other unfavorable reactions include nausea and vomiting, anxiety, unilateral anesthesia, delayed anesthesia, and in several patients a residual area of localized pain in the lower abdominal quadrant. Major Siever is to be congratulated for the excellent work he has done in developing continuous caudal anesthesia in obstetrics. When the final method is obtained, Major Siever will have played an important role.

CONGENITAL BLADDER NECK OBSTRUCTION*

JOHN M. PACE, M. D., M. S., F. A. C. S.
DALLAS, TEXAS

The existence of obstructive lesions in the bladder neck and posterior urethra of infants and children is well recognized today. In 1802, Langenbeck[12] described a congenital valve in the posterior urethra as an autopsy finding; Eigenbrodt[6] noted the same thing as an accidental finding in life in 1891, and Hugh Young[18, 19] described the cystoscopic appearance of three distinct types of valvular lesions in 1913. Edwin Beer[2] described contracture of the bladder neck in children in 1924 and later Bugbee and Wollstein[3] reported eight cases of bladder neck obstruction due to hypertrophy of the verumontanum. Hypertrophy of the internal vesical sphincter as described by Hendrickson and Simon[10] may be confused with contracture of the bladder neck described earlier by Beer[2] in an infant or young child.

Interesting cases of bladder neck obstruction have been reported by Hinman and Kutzman,[11] Lowsley and Kirwin,[13] Fagerstrom,[7] Grantham and Bunts,[9] Caulk,[5] McKay,[14] Campbell,[4] Thompson[17] and others. We are today seeing a larger number of these patients due to the interest and coöperation of the pediatrician and internist.

Infants and children suffering from a chronic or recurring urinary infection are to be suspected of some obstructive lesion. Other suggestive symptoms are straining, dribbling, crying at the time of voiding, an intermittent urinary stream, incontinence and enuresis. A palpable bladder or renal insufficiency are not, as a rule, evident until late in the disease and the absence of these symptoms should not lead a physician to feel that an obstruction may not exist.

In 1940, I[16] reported 5 cases of congenital bladder neck obstruction. Since then 8 additional cases have been encountered which are, I believe, of sufficient interest to warrant reporting to the Section at this time.

CASE REPORTS

CASE 1.—T. P., a white male, age 17, was first seen August 21, 1943, complaining of urinary incontinence and suprapubic pain.

The history, as obtained from the mother, was that as a child the patient had no apparent urinary difficulties but that five years previously he had developed acute urinary retention requiring hospital-

*From the Southwestern Medical College, Dallas, Texas.
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ization and catheter drainage. Following this episode, he had been dripping urine continuously day and night. During the past six days suprapubic pain had been present.

Examination showed an acutely ill, pasty-faced boy, who appeared to be much younger than his stated age. The temperature was 102.2 F., pulse 100, and respiration 26 per minute. The bladder was distended to the umbilicus. A No. 14 Fr. retention catheter was placed in the bladder and 450 cc. of urine obtained. The patient was hospitalized and during the next twelve hours a total of 3100 cc. of urine was obtained through the catheter.

The blood urea on admission to the hospital was found to be 161 mg. per 100 cc. of blood. The urine contained much albumin, pus, red blood cells and mixed organisms were observed in the gram stain. The white blood count was 12,600 and the red blood count 2,910,000 per cu. mm. of blood with hemoglobin of 9.3 Gm. A radiograph of the kidney, ureteral and bladder areas was negative.

Fluids were administered by vein, and three days later the blood urea was found to be 130 mg. per 100 cc. of blood.

On the following day, with a light gas anesthetic, suprapubic cystostomy was performed through a low

Fig. 1. Bilateral retrograde pyelogram demonstrating a horseshoe kidney with early right pyelectasis.

five-inch midline incision. A No. 26 Fr. two-wing catheter was placed on the floor of the bladder and the bladder wall was found to be hypertrophied to the thickness of an index finger.

The patient was dismissed from the hospital on the sixth postoperative day with instructions to return for further consideration at a later date.

The patient returned January 25, 1944, and appeared to have gained weight; his color was better and there was considerable general improvement.

The urine contained 3 plus albumin with a moderate number of red blood cells and pus cells. The blood urea was found to be 80 mg. per 100 cc. of blood and the urea clearance 80 per cent of normal. The hemoglobin was 10.3 Gm. Five hundred cc. of citrated blood was given as a transfusion.

On January 26, 1944, with a low spinal anesthetic of 80 mg. of novocain, a dense stricture was encountered in the anterior urethra, just distal to the bulb, which gripped a No. 14 Fr. bougie tightly. This stricture was dilated through No. 20 Fr. The No. 18 Fr. Thompson resectoscope was then passed and valves were noted in the bladder neck arising at 9:00, 12:00, 3:00 and 6:00 o'clock, all of which were attached to a separate thickened base. These valves were excised at the base with a minimal amount of bleeding, and a No. 18 Fr. catheter was left in the bladder for temporary drainage. The excised tissue histologically showed infected and hypertrophied connective tissue.

Fig. 2. Bilateral retrograde pyelogram. Left: Obstruction just below the ureteropelvic juncture. Right: Pelvis, calices and ureter within the limits of normal.

The retention catheter was removed on the third postoperative day, and the patient voided satisfactorily with the suprapubic tube still in place.

The patient was financially unable to remain for observation and was dismissed on the fifth postoperative day with instructions to connect the suprapubic tube to a bottle during the night and to clamp it during the day.

The patient returned March 28, 1944, and the urethral stricture was dilated through No. 18 F.

On April 6, 1944, the urethral stricture was dilated through No. 22 F., the suprapubic tube was removed, and the suprapubic opening subsequently healed. The patient had no residual bladder urine but a moderate amount of urinary infection persists.

CASE 2.—M. D., a white boy, 11 years old, was first seen September 9, 1942, complaining of pain in the right loin, frequent headaches and recurring attacks of fever for nine months. He also had been troubled with a frequency of urination since birth, and enuresis.

Physical examination showed some tenderness in each costovertebral angle, particularly the right. The blood pressure was 128 mm. of mercury systolic, and 88 diastolic; the temperature 100.2 F., pulse 120, and respirations 24. The centrifuged urine contained many clumps of pus cells with gram-negative

rods. The blood urea was 28 mg. per 100 cc. of blood; the hemoglobin 12:35 Gm., and the leukocytes 5,650 per cu. mm. of blood.

A radiograph of the kidney, ureteral and bladder areas was negative.

Cystoscopy, under drop ether, disclosed bulging of the right lateral lobe of the prostate and just distal to the verumontanum were two folds of mucous membrane with the apices pointing distally—congenital valves. The bladder was normal.

Catheters were passed on each side, and pyelograms were made which revealed a congenital horseshoe kidney with moderate right pyelectasis (Fig. 1).

Removal of the bladder neck obstruction was advised, to be followed later by division of the isthmus of the horseshoe kidney.

Fig. 3*a*. Bilateral retrograde pyelogram. Left: Gross hydronephrosis and hydroureter with elongation and kinking of the ureter. Right: Moderate dilatation of the renal pelvis, calices and ureter.

b. Bilateral retrograde pyelogram 14 months later. Left: Marked reduction in size of the renal pelvis, calices and ureter. Right: An essentially normal pyeloureterogram.

The patient returned October 22, 1942, and with drop ether as an anesthetic, the bulging right lateral lobe of the prostate and the congenital valves were thoroughly electrocoagulated. A small retention catheter was left in the bladder for forty-eight hours.

Following this procedure the child had no recurrence of pyuria until he developed influenza during January, 1944, and it was reported that pus was subsequently found in the urine. The last specimen of urine on February 14, 1944, was entirely negative, and the tenderness in the right costovertebral angle has disappeared. He occasionally spots the bed with urine, during his sleep, at the present time.

CASE 3.—G. N., a white male, age 9, was first seen January 29, 1943, at which time the mother stated that the child had been a bedwetter almost all of his life, and that pus had always been found in his urine by the pediatrician at the time of periodic physical examination. The physical examination was negative. The voided urine contained many gram-negative rods.

A radiograph of the kidney, ureteral and bladder areas was negative.

The blood urea was 29 mg. per 100 cc. of blood.

On cystoscopic examination, a cyst 1 cm. in diameter was noted arising from the verumontanum, associated with some fullness of the bladder neck. The cyst was fulgurated and pyelograms were made, which showed a persistent obstruction just below the left ureteropelvic juncture (Fig. 2).

Following fulguration of the cyst in the posterior urethra, the pediatrician reported that there had been no recurrence of the pyuria and the patient is no longer troubled with enuresis.

CASE 4.—R. B., a white male, age 4, was first seen August 25, 1943, complaining of frequency of urination and enuresis. Since birth the child had wet the bed four to five times at night, urinated approximately every fifteen minutes during the day, and his clothes were always wet.

Physical examination showed a normally developed child in no acute distress. The voided urine contained much pus and two ounces of residual bladder urine was present.

The blood urea was 31 mg. per 100 cc. of blood; the hemoglobin was 69 per cent; red blood cells 3,990,000 and white blood cells 6,400 per cu. mm. of blood.

A radiograph of the kidney, ureteral and bladder areas showed a small shadow in the bladder area, which was approximately 3 mm. in diameter. Excretory urograms were made and slight dilation of the pelvis, calices and ureter on each side was noted.

Cystoscopy, with drop ether anesthesia, showed a very marked contracture of the bladder neck associated with hypertrophy of the verumontanum. No bladder stone was seen. The dilation incidental to the cystoscopy gave the child complete relief of all urinary symptoms for a period of five weeks.

Excision of the obstructing tissue in the bladder neck was advised but this advice was rejected by the parents.

Relief was temporarily afforded for a period of two to three weeks by dilation of the bladder neck with bougies and the urine has been free of all evidence of infection since the time of cystoscopy.

CASE 5.—D. C., a white male, age 4, was first seen December 20, 1940, complaining of dysuria, frequency of urination and difficulty in starting the urinary stream during the past six months. The mother further stated that the child was a bedwetter.

Physical examination was negative. The urine contained a trace of albumin with from 4 to 5 pus cells per high power field. The blood urea was 42 mg. per 100 cc. of blood.

A radiograph of the kidney, ureteral and bladder areas was negative.

Cystoscopy, with drop ether anesthetic, disclosed hypertrophy of the verumontanum and two valves distal to the verumontanum associated with an unmeasured amount of residual bladder urine. The bladder was negative and the right ureteral orifice was gaping.

The patient was allowed to leave the hospital December 22, 1940, for the Christmas holidays. He was readmitted December 30, 1940, and under ether anesthetic, the verumontanum and valves of the posterior urethra were electrocoagulated.

Two months later the mother reported that the child no longer wet the bed during the night and that he had no urinary difficulties. It has been impossible to trace the patient further.

CASE 6.—P. L. R., a white female child, 17 months of age, was first seen January 23, 1941.

Since birth the patient had had many attacks of pyuria, usually following an upper respiratory infection and each attack was accompanied by an ele-

vation of temperature ranging from 103 F. to 105 F. In the intervals between the acute episodes, pus had also been found in the urine.

Examination showed a normal-appearing child in no distress. Catheterized urine showed 1 plus and the gram stain contained gram-positive and gram-negative cocci; 40 cc. of residual bladder urine was present. The blood urea was 97 mg. per 100 cc. of blood, and the blood picture revealed a mild secondary anemia.

A radiograph of the kidney, ureteral and bladder areas was negative.

Cystoscopy, with drop ether as an anesthetic, showed irregular folds of valve-like mucous membrane in the bladder neck. Indigo carmine was returned from the left side in 50 per cent concentration in six minutes time, whereas the return from the right was entirely within the limits of normal. Catheters were passed on each side and specimens of urine were obtained for microscopic study, and pyelograms were made. The bladder urine obtained through the cystoscope contained innumerable pus cells, while the specimens from each kidney contained a moderate amount of pus and the Gram stain on all specimens revealed gram-negative and gram-positive cocci.

The left retrograde pyelogram revealed the pelvis, calices and ureter to be dilated. The right retrograde pyelogram showed only a moderate dilation of the pelvis, calices and ureter (Fig. 3*a*).

Ten days later, with drop ether as an anesthetic, the obstructing tissue in the bladder neck was thoroughly destroyed with the fulgurating electrode.

Fourteen months later the patient was re-examined and pyelograms made, which show considerable improvement, and at this time the urine was negative (Fig. 3*b*). The blood urea was 31 mg. per 100 cc. of blood.

The patient has been observed at intervals during the past two years, and there has been no recurrence of pyuria or urinary difficulties.

CASE 7.—A white female infant, age 10 months, was first seen February 10, 1943. The mother stated that the baby had suffered many attacks of pyuria associated with elevation of temperature since birth.

The catheterized urine specimen contained gram-negative cocci and bacilli with an occasional pus cell.

Cystoscopy, with drop ether anesthetic, disclosed numerous folds of redundant mucous membrane in the bladder neck, acting as a valvular obstruction. The valves were destroyed by fulguration. Catheters were passed on each side and pyelograms were made which showed moderate right pyelectasis and ureterectasis with obstruction at the right ureteropelvic juncture (Fig. 4).

The patient has been observed for fourteen months postoperatively, and there have been no recurrences of the urinary difficulty.

CASE 8.—B. J. W., a white female, age 5, was first seen October 29, 1943, at which time the mother stated that since birth the child had been suffering with urinary incontinence day and night. Pus had been present in the urine and there had been tenderness in the region of the right kidney, with intermittent fever during the past two years.

General physical examination revealed slight tenderness in the right costovertebral angle. The catheterized urine was loaded with pus cells and the culture revealed Streptococcus fecalis.

A radiograph of the kidney, ureteral and bladder areas revealed spina bifida of the fifth lumbar and the sacral vertebrae. Ninety cc. of residual urine was obtained from the bladder.

Cystoscopic examination with drop ether, demonstrated a subacute, diffusely inflamed bladder with trabeculations of the posterior wall. In the bladder neck were folds of mucous membrane which produced a valve-like obstruction. Catheters were passed on each side and specimens obtained for microscopic study. The urine from the left kidney was negative, whereas the specimen from the right kidney contained pus cells and gram-positive cocci.

Pyelograms were made which showed a gross right hydronephrosis and hydroureter, with the pelvis of the left kidney within the limits of normal (Fig. 5*a*). The obstructing tissue in the bladder neck was subsequently destroyed by electrocoagulation.

In the six-month interval since the bladder neck obstruction was destroyed, the urine has become sterile and the patient has been able to go two or three hours without urinating.

Cystoscopic examination with a local anesthetic, April 4, 1944, showed no evidence of obstruction in the bladder neck. Trabeculations were not noted in the bladder. Pyelograms showed dilation of the

Fig. 4. Bilateral retrograde pyelogram. Left: Pelvis, calices and ureter within the limits of normal. Right: Pelvis and calices slightly dilated with obstruction at the ureteropelvic juncture.

right renal pelvis, calices and ureter with no abnormality of the left kidney. There has been some reduction in size of the right renal pelvis, calices and ureter. The ureter is no longer elongated (Fig. 5*b*).

COMMENT

The first patient, a boy of 17 who was suffering with a bladder neck obstruction characterized by overflow urinary incontinence of five years standing, had severe renal damage. Had his symptoms been recognized at the time of his first hospitalization much suffering would have been prevented and the possibility of further damage to the kidneys precluded. Evidence of urinary infection is still present and it is doubtful as to the urine becoming sterile due to the long-standing kidney damage.

The second patient, a boy of 11, who although troubled with frequency of urination and enuresis since birth, had not progressed to the point of demonstrable renal damage insofar as our present tests of kidney function will determine. The finding of a horseshoe kidney, a coincidental anomaly, is of interest and his pain in the right loin was due to dilatation of the right renal pelvis. I feel that the isthmus of the horseshoe kidney should be ultimately divided; however, the relief of right renal pain following the removal of the bladder neck obstruction has been so remarkable that the parents are unable to see the wisdom of such a surgical procedure. This patient, preoperatively, wet the bed several times each night and now does so only occasionally, each fifth or sixth night. His urine is sterile.

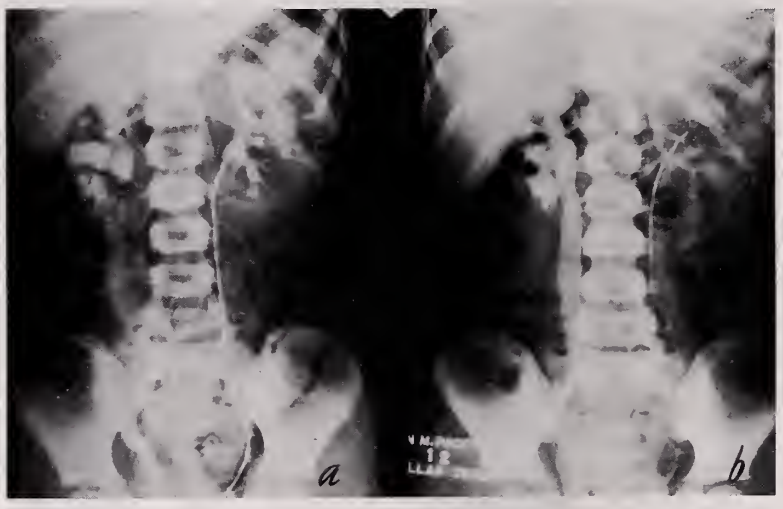

Fig. 5*a*. Bilateral retrograde pyelogram. Left: Pelvis and calices within the limits of normal. Right: Gross hydronephrosis and hydroureter with elongation and kinking of the ureter.

b. Right retrograde pyelogram 6 months later. Noticeable reduction in the size of the renal pelvis, calices and ureter. The ureter shows no evidence of elongation and kinking.

The third patient, a boy of 9, had been a bedwetter since birth and pus had been found in the urine repeatedly. Following fulguration of the cyst, which arose from the verumontanum, the child has had no recurrence of the pyuria or enuresis. The pyelographic evidence of obstruction just below the left ureteropelvic juncture is a coincidental anomaly.

The fourth patient, a boy of 4, complained of a marked diurnal frequency of urination with enuresis. A definite contracture of the bladder neck associated with hypertrophy of the verumontanum was noted. The obstructive lesion was primarily the bladder neck contracture as evidenced by relief afforded the patient by the dilation incidental to the passage of the cystoscope. Undoubtedly, this bladder neck contracture should be resected.

The fifth patient, a boy of 4, complained of dysuria, frequency of urination, and enuresis. The obstructive lesion was found to be hypertrophy of the verumontanum associated with two congenital valves. Following the fulguration of the verumontanum and desiccation of the urethral valves the child was able to sleep without wetting the bed. It has been impossible to follow the patient further.

The sixth patient, a female of 17 months, had suffered many attacks of pyuria since birth. Residual bladder urine was present and the blood urea was 97 mg. per 100 cc. of blood. Cystoscopy revealed bladder neck obstruction due to folds of mucous membrane which protruded in the bladder neck. Severe reduction in the function of the left kidney was noted and the left pyelogram showed a tremendous hydronephrosis and hydroureter, whereas the right pyelogram demonstrated moderate dilation of the pelvis and calices. Following the destruction of the obstructing tissue in the bladder neck, I was most gratified to note fourteen months later, the spectacular reduction in the size of the left renal pelvis, calices and ureter, and a normal right pyelogram. The urine is sterile.

The seventh patient, a female infant of 10 months, had suffered many attacks of pyuria since birth. A marked bacilluria was found and cystoscopically an obstruction was noted in the bladder neck similar to that described in the preceding case. The obstruction demonstrated in the pyelogram just below the right ureteropelvic juncture, is merely a coincidental anomaly.

The eighth patient, a girl of 5 years, had been suffering with urinary incontinence day and night since birth, associated with pyuria, and tenderness in the region of the right kidney of two years duration. The catheterized urine contained much pus and the culture revealed Streptococcus fecalis. The spina bifida of the fifth lumbar and sacral vertebrae raises the question of a cord bladder in spite of the bladder neck obstruction which was associated with 90 cc. of residual bladder urine. Pyelograms demonstrated a right hydronephrosis and hydroureter with no abnormality of the left kidney. Following fulguration of the bladder neck obstruction there has been improvement in the bladder symptoms as the child is able to go two or three hours without urinating, and the process

which was destroying the right kidney has been arrested as demonstrated by the reduction in the size of the right renal pelvis and calices in the pyelogram which was made six months postoperatively. It cannot be denied that some impairment to the nerve supply of the bladder may not be present, and the clinical relief may be similar to that seen following the resection of an obstructing prostate in the tabetic.

SUMMARY

Cases of eight young patients suffering with congenital bladder neck obstruction are reported.

Five of these patients are boys and the obstructing lesion was found to be due to congenital valves alone; congenital valves associated with a bulging lateral lobe of the prostate; a cyst of the posterior urethra arising from the verumontanum; contracture of the bladder neck associated with hypertrophy of the verumontanum; and again hypertrophy of the verumontanum with congenital valves.

The three females ranging in ages from 10 months to 5 years all had symptoms of recurring attacks of pyuria or chronic pyuria. The obstructing lesion in the bladder neck was quite similar cystoscopically in all three patients and appeared as irregular folds of mucous membrane which protruded towards the midline and "waved in the water." Marked relief was obtained following the destruction of these lesions symptomatically and objectively.

It is hoped that physicians who see children suffering from chronic or recurring urinary infections, straining, dribbling, crying at the time of voiding, incontinence and enuresis, will consider the possibility of a bladder neck obstruction. The early recognition of these lesions will prevent renal damage which may be of a permanent nature.

CONCLUSIONS

1. Congenital bladder neck obstruction may be present in infants and children suffering with a chronic or recurring urinary infection; and a frequency of urination, straining, urinary incontinence or enuresis are suggestive symptoms of bladder neck obstruction.

2. Coincidental anomalies of the upper urinary tract may exist.

3. A congenital bladder neck obstruction will damage the renal parenchyma if allowed to persist.

4. The obstructing tissue may be removed transurethrally with little risk to the patient and with most gratifying results.

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427 Medical Arts Building.

ABSTRACT OF DISCUSSION

Dr. J. Howard Shane, Dallas: Dr. Pace has presented to us eight very interesting and instructive cases. Certainly he is to be commended on being on the alert in his diagnosis and treatment of these little patients.

Campbell in his textbook states that various combinations of obstruction and infection constitute over 90 per cent of the major urologic problems in children.

Besides the usual symptoms of bladder neck obstruction which Dr. Pace has pointed out, I might mention the fretting child who does not gain weight or growth normally, and has attacks of unexplained fever with perhaps only a small amount of pus in the urine.

Continuous or intermittent pyuria is very significant. The sulfonamides may cause the disappearance of pus for a short time. The physician who has the responsibility of these children should ever be watchful for the return of pyuria after a course of one of the sulfa drugs. Should pyuria return, prompt urologic examination should be done. If bladder neck obstruction be present any prolonged delay may mean irreparable kidney damage.

Nor is diagnosis by excretory urogram sufficient. Many times, especially in children, is the excretory urogram unsatisfactory. Children notoriously show evidence of large amounts of gas in the x-ray films.

The one important examination is with the cystoscope with which the bladder, bladder neck and urethra can be visualized. Retrograde pyelograms should be done at the same time. Transurethral methods of treatment have also simplified the management of these cases, as Dr. Pace has so aptly demonstrated.

CONTACT DERMATITIS FROM PENICILLIN

What is apparently the first case to be reported of contact dermatitis from penicillin is described in *The Journal of the American Medical Association* for July 29 by Major H. D. Pyle, M. C., A. U. S., and Herbert Rattner, M. D., Chicago.

THE PLATEAU TEST IN BREAST CARCINOMA

DUDLEY JACKSON, M. D.
AND
ALVIN O. SEVERANCE, M. D.
SAN ANTONIO, TEXAS

As one result of the cancer educational campagin sponsored by the Women's Field Army for the Control of Cancer in Texas during 1941 and 1942, doctors in this state soon began to see more benign breast lesions than ever before. Likewise, they were seeing smaller and earlier breast cancers than before. Their diagnostic acumen was really tested by these early cancer cases. It soon became apparent that any sign which would help them in establishing an early diagnosis of carcinoma would be invaluable.

During this two year period one of us (D. Jackson) observed a peculiar flattening of the skin over certain lumps in the breast during palpation, which was not present during simple inspection of the breast. As time went on he began to feel that this sign was quite often indicative of carcinoma. This sign has for its underlying basis the same principle which produces the picture of more advanced cases of breast cancer.

FIG. 1. Photograph in a case of early malignancy of the left breast, before manipulation of the "Plateau Test," and disclosing no evidence of tumor.

All of us are familiar with the signs of advanced carcinoma of the breast, with its large mass, its pigskin or orange-peel appearance and retraction of the nipple. A slightly earlier stage of this disease is accompanied by the well known dimpling of the skin over the lump. Scott in 1937 brought out the earliest physical sign which had so far been demonstrated. He called this the "shadow test." Haagensen in 1939, writing in Nelson's Loose Leaf System of Surgery says, "Fixation to the overlying skin is an extremely important sign which is produced but rarely by benign lesions. Harrington (1933) reported it was present in 82 per cent of his cases. It can be demonstrated in even a higher percentage of cases if the patient is shifted from one position to another and if the examination is done in good light. In July, 1941, Farrow of Memorial Hospital, New York, in an article on lumps in the breast wrote, "Deeper growths may produce a flattening of the curve and sometimes a retraction of the skin, causing a dimple." Stout of the Presbyterian Hospital, New York, in October, 1942, in an article on the clinical diagnosis of cancer of the breast says, "The breasts may be symmetrical and show nothing externally and yet manipulation can bring out the telltale skin flattening which almost always suggests that a lump is cancer." These are the only references which we encountered in a brief and inconclusive search of the literature that might suggest the so-called "plateau test" which will later be demonstrated here by a motion picture film and translux pictures.

FIG. 2. Manipulation of normal area of the left breast, showing a rounded surface, or negative findings of a lesion.

The "plateau" is produced by manipulation. The flat of a hand is placed on each side of the tumor. Gently the hands are brought toward each other with sufficient pressure to produce a rounded surface between them and over the tumor. This surface is likened to the top of a hill. In a normal breast, or in the presence of a benign tumor, there remains a perfectly rounded top. In the presence of an early malignancy, there is a flattening of this top—a flattening containing fine irregularities, hence, the name plateau. It is caused by strands of dense fibrous tissue reaching from the tumor up through the fat towards the overlying skin. These strands are usually a result of stimulation of the fibrous stroma by carcinoma. At times it may be caused by a

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chronic inflammatory process around benign breast lesions.

Some time in July, 1942, we began keeping records of the "plateau test" in definitely proven carcinoma of the breast. In this period we had 9 cases of carcinoma with 6 positive and 3 negative "plateau tests." In September, 1942, we decided to keep accurate

FIG. 3. Manipulation of area of the left breast, showing flattening surface or "plateau," indicating the presence of an underlying malignancy.

record of the "plateau tests" in cases which came to surgery. This resulted in added information about the test in benign lesions.

Chart 1 shows results of our statistical survey.

CHART 1.—*Data on the Plateau Test in a Series of Breast Tumor Lesions.*

I.	Total breast cases examined in a nineteen month period	346	
	Positive plateau noted in	46	
	Breast cases coming to surgery with pathological examination in a twenty-one month period	127	
	Positive Plateau	47	37%
	Carcinoma	37	78%
	Benign lesion	10	22%
	Negative Plateau	80	63%
	Benign lesion	73	91%
	Carcinoma	7	9%
II.	Advanced carcinoma	5	
	Biopsy	2	
	No biopsy	3	
	Inflammatory carcinoma	4	
	Biopsy	3	
	No biopsy	1	
	Positive plateau	2	
	Radical operations for breast cancer	38	
	Performed by other surgeons	5	

After working with this test for several years we have found that the zone just above the nipple does not lend itself to an accurate interpretation. This is due to a closer proximity of the skin to the underlying breast tissue. We no longer use the test in this area. Chronic cystic mastitis contributed our greatest error in false positives. We now know that this lesion gives a smooth flat plateau at times, whereas in cancer the plateau is irregular and often has fine lines and indentations on its surface.

We are hopeful that focusing attention on this helpful sign in cancer diagnosis will bring more early breast carcinomas to prompt operation, thereby discouraging the dangerous habit of "watching" a lump in the breast.

ABSTRACT OF DISCUSSION

Dr. A. C. Scott, Jr., Temple: I wish to congratulate Dr. Jackson and Dr. Severance on the observations and studies they have made in searching for an early diagnostic aid in determining the presence of cancer of the breast.

I wish to disagree, however, with one statement made relative to the Scott shadow test in areas just above the nipple. I have repeatedly found the shadow demonstrable and the test proven accurate in areas of the breast above the nipple. The shadow test—like Dr. Jackson's—is of no value whatsoever within the area of the areola surrounding the nipple. Likewise both are valueless over areas where there has been a breast abscess or some acute inflammatory process.

With the two exceptions cited, the Scott shadow test is reliable in any part of the breast, provided the technique of conducting the test is properly carried out.

As will be remembered by many, my father, the late Dr. A. C. Scott, some fifteen years ago discovered the significance of shadows produced by retraction of Cooper's ligaments over a cancerous tumor and repeatedly called attention to the value of the test in the early determination of cancer of the breast. As shown by statistical checks of the test with the pathological findings on tumors removed, in Dr. Scott's hands the test was accurate to 92 per cent. Checks of diagnoses made by eighteen other members of the staff—all grouped together—showed 89 per cent accuracy for this group. This would indicate a higher degree of accuracy for the Scott shadow test than the plateau test, which Dr. Jackson is demonstrating.

I believe that if Dr. Jackson will follow Dr. Scott, Sr.'s original technique of conducting the test in a dark room, using a small shaft of light from a flashlight, thrown obliquely across the breast surface by someone holding the light while he gently manipulates the tumor and breast, he will get even a higher percentage of accurate results than his present statistics indicate.

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It is often said that the death rate from tuberculosis is a delicate index of social progress. If this is so, one of the most striking features in the history of public health is the steady decline of both pulmonary and non-pulmonary tuberculosis during the past two generations. There are many factors responsible for this decline, including a higher standard of living, better housing and better education, but these are only contributory. It must never be forgotten that tuberculosis is first and last an infectious disease. Anything that increases the risk of infection will cause a rise in the incidence of the disease, and anything that diminishes that risk will result in a rapid improvement in the figures.—James Mackintosh, M. D. New Jersey Pub. Health News, Dec., 1943.

ARTIFICIAL FEVER THERAPY

E. P. CAYO, M. D.
SAN ANTONIO, TEXAS

Although the purpose of this paper is to set forth in as lucid and concise a manner as possible the method of inducing and controlling artificial fever used in the Physiotherapy Department of Santa Rosa Hospital, San Antonio, some attention will be given to its value in the treatment of neurosyphilis.

The induction and control of artificial fever has now reached such a degree of safety that the physician need no longer fear the dire results sometimes experienced in the development of this now highly valued mode of therapy. True, untoward effects still obtain, and even fatalities occur, but they are becoming very rare and, as experience grows, should virtually disappear.

For the induction of artificial fever, only one thing is required and that is heat. Heat may be applied to the body by means of warm dry air, warm moist air, warm water, or it may be generated in the body by means of diathermy. Of all these methods we have found warm moist air (a saturation of about 90 F.) to be the most satisfactory, and this is the degree of saturation we use in all of our work. This saturation is used with a cabinet temperature that seldom reaches 120 F.

In a moist atmosphere, perspiration is checked; thus more of the body fluids and salts are retained. This is true to such an extent that we have held patients at a body temperature of 106 F. for five hours on as little as one quart of fluid for the entire treatment, and it is rare for us to administer more than two quarts of fluid during a standard treatment, which means a sustained mean temperature of 106 F. for five hours. When this temperature varies more than three-tenth of a degree above or below the temperature desired, it is not considered entirely satisfactory.

Before discussing hyperthermia as a remedy I shall endeavor to explain in detail the technique we use for its induction. This technique, with little modification, has been used at the Santa Rosa Hospital of San Antonio since 1937 and is proving very satisfactory.

We use two machines; one is the product of one of our leading manufacturers. The other was developed in San Antonio by us; however, in each of them special provision was made for air saturation. The movement of air in the machine should be constant but barely perceptible. In an atmosphere as above described, the temperature of the cabinet need never go above 120 F. to attain a rectal temperature of 106 F. in from one and one-half to two hours. As previously stated, fluids are never forced but are often withheld. As soon as the temperature reaches 100 F. the administration of oxygen by means of nasal catheter is instituted, and is allowed to flow at the rate of 4 liters per minute. When the pulse rate passes 130 per minute the flow is increased to 6 or even 8 liters per minute. As soon as the patient begins to show signs of discomfort a sedative drug is administered. We generally use morphine sulphate in from 1/6 to 1/4 grain dosage. This drug may be repeated in thirty minutes if the patient shows no effect from the first dose. In rare cases, 1/6 or even 1/8 grain of morphine sulphate may prove sufficient for an entire treatment, while in other cases as much as one grain of the drug administered in doses of ¼ grain every 30 minutes may be required to get the desired sedation. When it is found that a patient is nauseated by morphine another drug should be selected. All other things being equal, as little sedative as possible should be used to keep the patient comfortable.

An indicating thermometer, carefully checked before each treatment, is absolutely necessary, and the rectal tips should be kept in place by means of a T bandage.

If correctly applied this bandage will keep the tip in place regardless of the movement of the patient. With our machines and experienced nurses most of our graphs show sustained temperatures of 106 F. and even 107 F. with only one or two-tenths degree variation during the calculated treatment of four, five or six hours.

PREPARATION OF PATIENT

After a history and careful physical examination of the patient a serological analysis on both blood and spinal fluid is carried out. If combined treatment is to be given, a report from the ophthalmologist as to the condition of the eye ground is obtained. If the patient is considered suitable for this treatment, he enters the hospital the night preceding the treatment, is given 120 mg. of bismuth subsalicylate (oil suspension) intramuscularly, is encouraged to drink plentifully of fruit juices and is given a good night's rest. Sedatives may be required. At about six in the morning the patient is given the usual hospital service, a slice or two of toast with coffee, and encouraged to drink at least one or two glasses of fruit juice. He is then given a high enema, and at 7:30 a. m. he is taken to the treatment room in a wheel chair and placed in the cabinet. The heels

From the Physiotherapy Department of Santa Rosa Hospital, San Antonio.
Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, San Antonio, May 4, 1944.

and elbows are padded and both hands and feet encased in loose fitting coveralls. The padding is to prevent burns and bruises. The area around the mouth and nose should be covered with some bland lubricant in an attempt to prevent herpes simplex. In less than two hours after the patient is placed in the cabinet he should be resting nicely, have a good color and have a rectal temperature of 106 F. We never use diathermy or so-called short wave to induce fever because we have found that while it may cause the patient's temperature to rise a little more rapidly, there is considerable danger of causing rather severe burns in pressure areas, particularly where, as in our method, very moist air is used. Again, if the short wave and the thermometer are turned on at the same time the latter may be ruined.

WHY FLUIDS ARE NOT FORCED

We do not force fluids, first because if the patient's body is in an almost saturated atmosphere there can be little evaporation, hence a reduced loss by perspiration. Secondly, it was noted that in practically every case where fluids were forced, even in most cases where they were not withheld, at least to some extent these fluids were not retained but were vomited in large quantities, thus inciting gastric irritation. The bugaboo of dehydration has been greatly overemphasized. As mentioned earlier we withhold fluids in most cases, and have put patients through an entire treatment on as little as one quart of fluid and have not as yet noticed any ill effect. If nausea does appear and fluids are not retained to an extent deemed necessary a 5 per cent solution of glucose in normal saline is administered intravenously. This is given up to 1,000 cc. and later repeated if deemed necessary. Intravenous glucose is used in the same manner should the systolic pressure fall below 40.

WHY OXYGEN IS ADMINISTERED

The scope of this paper will permit only a very brief answer to this important question; anyone interested in fever therapy should by all means acquaint himself with the work of Major and Hartman, Cullen, Weir and Cook, and Wilson and Doan. Oxygen is administered to prevent anoxia. It has been found that with a rise of body temperature to 1 F. the basal metabolic rate is increased about 7 per cent. This of course creates a much greater demand for oxygen in the tissues, particularly in those of the central nervous system.

It has also been proven in cases where no oxygen was administered that by the time a body temperature of 106 F. was reached there was a drop in the arterial oxygen tension of as much as 25 per cent, and as the treatment progressed the tension had a tendency to go still lower. When oxygen was administered there was no fall in tension. The administration of oxygen tends to keep down the pulse rate; in fact, will keep it down in most cases. The patient is more restful and therefore easier to control. However, the main purpose of extra oxygen is to prevent anoxia, particularly of the central nervous system, where a slight degree of oxygen deficiency may have serious consequence. Anoxia is now believed to be a major factor in causing hemorrhage commonly found in all fatalities. With present-day knowledge and experience this serious complication should seldom occur and then only in poor risks.

CIRCULATORY COLLAPSE

In circulatory collapse the patient presents a very depleted condition, with temperature rising even after all heat has been cut off and even after cold water sponging has been instituted. A weak and rapid pulse is always present. The systolic pressure is low and as a rule continues to fall until the rise in temperature has been checked.

In the first year of our work we forced fluids and did everything according to the best authorities to our knowledge. Moreover we used oxygen in all of our cases, and yet we had 4 cases of collapse, but happily no fatalities. In 1 of our cases, the systolic pressure went so low that it could not be detected, and when the rectal temperature was within one-tenth of reaching 108 F. the indicating thermometer was removed and an ice water enema instituted to supplement the ice water sponging. This was a case of intermediate tabes dorsalis, and was greatly benefited by the combined fever-chemotherapy treatments, of which he received eighteen. Although we did not obtain a reversal in this case the spinal fluid cell count and protein are well within the normal range, and the patient is able to carry on his daily work.

In other cases of collapse above referred to, we were able to control the temperature by means of ice water sponging only; we used heart stimulants, but we did not use intravenous medication in a single instance. That does not mean that we are prejudiced against intravenous medication or that we would not use it in future cases of collapse.

In the past three years we have had no cases in which collapse occurred. This is due, we think, first to a better understanding of the patient's physical and mental condition before treatment is started; secondly to a better knowledge of the use of oxygen, and last but perhaps not least, better air conditioning of our cabinets.

We have found that after the temperature has been controlled and started downward that atropine sulphate in doses of 1/150 to 1/100 gr. administered hypodermically does not tend to cause a rise in temperature but does seem to favor a rise in blood pressure. We often give it for excessive perspiration and depletion after the patient has been returned to his room.

HEAT STROKE

The main difference in this condition and circulatory collapse is that while the temperature tends to rise beyond control the blood pressure instead of falling increases and cerebral and pulmonary edema may develop. The cause of heat stroke is not known, but no doubt a disturbance of the heat regulating center is the fundamental cause and this disturbance is very likely the result of anoxemia. We are inclined to accept this as the most plausible explanation because, having always used oxygen, we have never observed heat stroke as a complication. If heat stroke occurs we are advised to attempt control of fever by tepid sponge bath, cool air, and so forth, but no ice water bath because, as pointed out by Krusen, Elkins, and others, ice water sponging has a tendency to cause contracture of the superficial capillaries and thus lessens radiation with a resultant increase in temperature.

While we have had no experience with heat stroke, we know from our experience in circulatory collapse and other conditions where the temperature continued to rise toward the danger point, even after all external heat was removed, that ice water sponging and ice water enemata have never failed to check the rise in temperature in time to prevent fatality.

NAUSEA AND VOMITING

These complications will cause little trouble if fluids are not forced and if sedatives are held to a minimum. However, apprehension and restlessness, to say nothing of violence, should be controlled and to such an extent that the patient remains fairly comfortable. A little psychotherapy before as well as during the treatment will be found very helpful in many cases.

HERPES SIMPLEX

This complication occurs in about 50 per cent of our cases in spite of the fact that the lips and nasal openings are always protected by some mild lubricant. Patients should always be advised beforehand of the possible, in fact, likely development of herpes.

Artificial Fever in the Treatment of Neurosyphilis Where Chemotherapy Has Failed to Show Serological Improvement or Failed to Prevent the Development and Progress of Dementia Paralytica or Tabes Dorsalis.—Although we have been treating such cases since 1937, it is only since 1940 that we have been using a technique which we think yields results that will compare favorably with any that has come to our attention.

We give from eight to ten treatments of five hours of 106 F. When the fever has reached 105 F. the patient is given an intravenous injection of .06 Gm. mapharsen. Treatments are given twice weekly if the patient's physical condition will permit; otherwise they are given weekly.

When the treatment is to be terminated, the patient is not left in the machine to cool off, but is taken on a wheel table to his room where he is wrapped in blankets and left to cool off very slowly. During the cooling off period, fluids are still withheld to a great extent. The patient is allowed cracked ice and just a little fluid. Should nausea and vomiting develop, from 500 to 1,000 cc. of 5 per cent glucose solution is given intravenously. This may be repeated later. On the morning following treatment the patient is given another intravenous injection of .06 Gm. mapharsen, and about an hour or so later allowed to leave the hospital if his physical condition will permit. Two months after the last treatment the patient's blood and spinal fluid are checked. If one or both are still positive he is advised to repeat the course of treatment.

Our cases have not been evaluated here, because our follow-up system has been unsatisfactory; however, as far as we have been able to ascertain about 5 per cent of our patients failed to be benefited symptomatically. In some cases we have failed to get reverses even after three or four courses of treatments, while the patient seems to be symptom-free.

We are inclined to agree with Dittner and Thomas and assume that the syphilitic process is inactive when the spinal fluid cell count and protein return to normal, and that as long as they remain so the process will remain inactive. Therefore, the patient's spinal fluid should be checked once or twice yearly to learn if the cell count and protein remain normal.

SUMMARY

From what I have learned up to the present time it is evident that the induction of artificial fever can best be accomplished by means of warm moist air up to about 90 per cent saturation. Oxygen should be administered throughout each of the treatments. Fluids should never be forced, at least not to such an extent as to cause nausea and vomiting. In the treatment of neurosyphilis,

the best results are attained by continued fever-chemotherapy. Experience is proving that fever therapy to be most effective should be sustained at about 106 F. Temperatures of 103 or 104 F. seem to have little value.

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ABSTRACT OF DISCUSSION

Dr. Merton M. Minter, San Antonio: Although hot baths have been used for centuries in the treatment of disease, it was not until recently that physicians stopped looking upon fever as something to be combated. It was noticed that most self-limited diseases were accompanied by fever, while many prolonged illnesses are notably lacking in temperature elevations.

Dr. Cayo has discussed the production of artificial fever by mechanical means. It might be well to emphasize the generally accepted indications and contra-indications for this type of therapy.

While it is true that most disease organisms cannot be destroyed by the heat which is tolerated by the human body, the combination of high temperature and resultant changes in the defense mechanism of the body makes fever therapy worth-while in atrophic arthritis, chorea, persistent gonorrhea until penicillin is available, granuloma inguinale, and certain forms of syphilis, particularly in dementia paralytica and tabes. It is also effective in acute brucellosis, but apparently does little, if any, good in chronic cases. Often the combination of specific medication, plus fever therapy, is worth-while.

The contraindications are serious diseases of the cardiovascular, renal or hepatic systems. Any contraindication to major surgery is, in general, a contraindication to fever therapy.

Dr. Cayo has given us a concise and conservative review of his experience as head of the Physiotherapy Department at the Santa Rosa Hospital. It is through such reports that we may learn to whom this therapy would be helpful and to whom it would be worthless.

"JUNGLE ROT"

Apparently there is no such disease as "jungle rot," *The Journal of the American Medical Association* for August 26 advises in answer to a query.

"The United States Army Medical Department," *The Journal* says, "has no information concerning the disease called 'jungle rot.' Perhaps the term applies to a condition known as 'Barcoo rot' which is a synonym for 'desert sore' or 'veld sore.' . . .

"From Panama comes information that the terms 'jungle rot' and 'tropical rot' are used by laymen to describe any sort of sore developing on the body, usually a severe form of . . . fungus, mold or yeast infection."

VAGINAL THRUSH

HERMAN L. GARDNER, M. D.
HOUSTON, TEXAS

In recent years a voluminous amount of experimentation has been done on trichomonas vaginitis. The characteristic morphology and motility of the causative organism have become known to practically every physician and technician, and many successful methods of treatment have been advocated. Vaginal thrush, on the other hand, has not received this same attention, which its seriousness seems to warrant. Some workers, notably Hesseltine[1, 2, 3, 7, 8] and Plass, [1, 7, 8] have contributed greatly to our knowledge of the condition, but still many of its problems have not been solved. Some will not agree with the statement that clinical vaginal thrush is possibly more prevalent in the obstetric patient than clinical trichomonas vaginitis. My patients are instructed to use lactic acid in their douches and this has probably prevented some cases of clinical trichomonas vaginitis, while possibly encouraging some cases of monilia vaginitis. Trichomonas seldom, if ever, produces mortality in either mother or baby, but unfortunately monilia infections are not borne with the same degree of safety by the infant.

The mortality rate for oral thrush in the newborn is much higher than is generally known. The death certificates of some of these babies bear such diagnoses as streptococcic pharyngitis. One of our local undertakers recently remarked that he had buried several babies of late, whose mouths contained "purple." A Mrs. E. D. was treated in the office many times for a resistant vaginal thrush during her pregnancy. She was delivered of a normal boy who developed typical oral thrush on the fourth day. The baby was vigorously treated by a competent pediatrician from the onset of the infection, but died when six weeks old from strangulation caused by the uncontrolled monilia growth. It is probable that the majority of cases of oral thrush in the newborn are acquired directly from the mother's vagina.

Vaginal thrush is either on the increase, or its frequency of recognition is changing. Some doctors still believe it to be a rare condition. Others deny that the monilia organism is a pathogen, think of it as a contaminant or accidental finding, and attach no significance to its presence. Most textbooks contribute but short paragraphs to mycotic infections of the vagina. From them one is likely to receive the impression that a cure is assured if the vulva and vagina are dabbed with gentian violet a few times. A condi-

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tion as serious as this should not be so lightly handled. Vaginal thrush constitutes a problem for the obstetrician because no effective method of home treatment has been established, and recurrences following long courses of office treatment are disappointingly high.

Included in this report are 81 cases of vaginal thrush occurring in private practice during a two-year period. Of these cases, 67 were seen in pregnant patients while 14 were seen in the non-pregnant. Vaginal thrush is variously known as monilia vaginitis, mycotic vaginitis, yeast vaginitis, fungus vaginitis, vaginal moniliasis, vaginal mycosis, *et cetera.*

SYMPTOMS AND SIGNS

The most constant symptom of vaginal thrush is *itching* of the vulva and it is common for the itch to disturb sleep. All but one of this group of 81 patients volunteered the complaint, and this patient stated that she burned after urinating. The pruritis of trichomonas is relatively mild as compared to that of monilia. *Vaginal discharge* is the next most frequent complaint. Ninety-six and three-tenths per cent of the patients answered in the affirmative when asked if they had any unusual vaginal discharge. Burning and irritation of the vulva are common symptoms and they are worse after urinating. Tenderness of the vulva and vagina cause dysparunia in most cases.

Examination of these patients usually shows slightly swollen labia; severe swelling is rarely seen. Women with vaginal thrush claw themselves during sleep, and the urge to scratch, even in public, is sometimes controlled with difficulty. "Fingernail" excoriations of the vulva are common and sometimes secondary infection in these abrasions produce inguinal lymphadenitis. This type of adenitis was seen in 4 of the group of 81 cases and in each instance the swollen glands disappeared after two or three treatments for the fungus.

Thrush patches on the vulva occur frequently but are usually limited to the moist surfaces between the labia. One patient had grayish membrane formation into each labiocrural fold and onto the mons pubis. Some patients showed an extremely dry, red and slightly swollen vulva with no external signs of membrane formation, but the vaginas of these patients usually contained a dry, flaky material. In some patients the vaginal canal was peppered with numerous, thin, grayish plaques, 2 or 3 mm. in diameter. Repeated observations indicated that these small separated patches represented an early phase of the disease as many of the patients presented no complaint at the time, although the majority announced their troubles within a few days. If no treatment is given, the patches may spread and become confluent to give a more or less complete membranous lining to the vagina and cervix. As the membrane or patches grow in thickness, portions detach and come to lie in the vagina as "chunks" of curd-like cheesy, or caseous material. Ninety-two and six-tenths per cent of this group of patients showed a membraneous or curd-like material in the vagina or on the vulva. Wiping the membrane off does not leave a bleeding base as when a diphtheritic membrane is removed. The red, raw vagina frequently weeps serum, which probably explains the profuse, watery discharge so often seen. The serum becomes mixed with cast-off epithelial cells and pus cells to produce a true leukorrheic type of discharge. Some authors who have done work on the subject refer to this

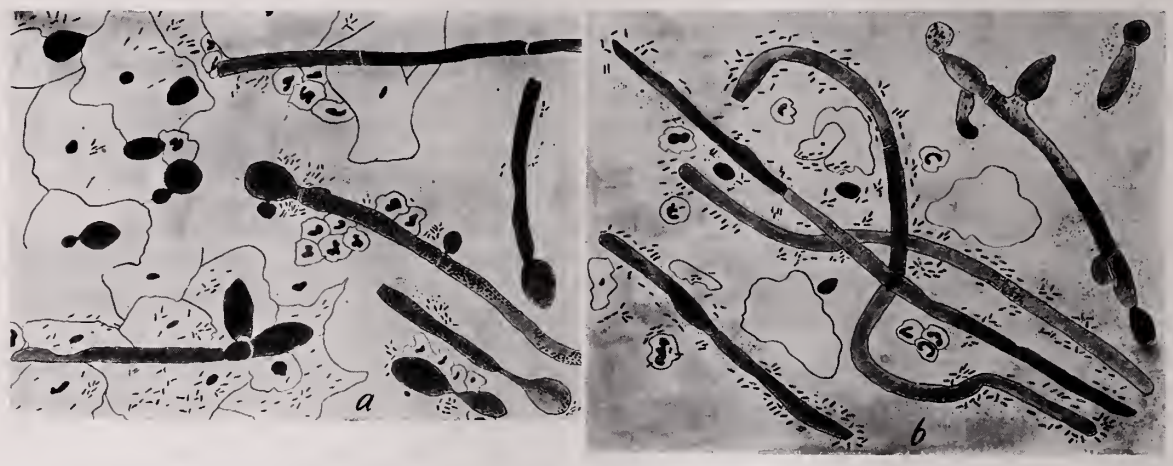

FIG. 1. *a* and *b*—Drawings from two fields as seen through oil emersion after Gram's stain of vaginal smear. Filaments and spores are characteristically shown. Many pus and epithelial cells were purposely left out of the picture.

type discharge as being purulent, but I have not observed a single case in which the discharge resembled the yellow purulent discharge of gonorrhea. One patient's vagina contained 25 cc. of leukorrheic and curd-like material. Pustules of the vulva have been described as an occasional symptom of vaginal thrush but not one pustule was seen in any of the 81 cases observed. It is true that minute papules peppered the vaginal mucosa in a few cases but this was probably from the bacterial flora rather than the monilia organism.

Twelve and three-tenths per cent of the 81 cases of monilia infection had an associated trichomonas infection or developed one immediately following treatment. It is a fairly common sequence to see an acute trichomonas infection following treatment for thrush, gentian violet apparently having no effect on trichomonads.

INCIDENCE

Sixty-seven, or 11.5 per cent, of 585 obstetrical patients had vaginal thrush. Many of the patients were not observed throughout their pregnancies, some having followed their husbands who were in the army or to new defense jobs, while approximately one-fourth of them are still antepartum. No doubt some of those who have passed from observation and some of those yet undelivered will acquire an infection. Fourteen of the non-pregnant group of 491 patients, or 2.85 per cent, had vaginal thrush. This figure is not entirely accurate because included in it were 76 patients who had been delivered recently by other doctors. None of this group of postpartum patients presented any clinical evidence of a monilia infection at the time of the six weeks examination. It is commonly assumed that monilia vaginitis is more prevalent in warm, humid climates, such as we have in Houston, but there is no convincing evidence to support this idea. If the assumption were true, it would seem to indicate that the fungus might live outside the body in such places as dark, damp corners, but it is unlikely that the organism comes in the same category with bread mold and mildew. Reports coming from other parts of the country show a higher incidence of monilia infections than has occurred in this group of private patients, although it is admitted that most other reports are made from the study of clinic patients.

ETIOLOGY AND PATHOGENICITY

It has been repeatedly confirmed that thrush is usually caused by the fungus organism commonly known as Monilia. Whether this name is generically correct is not a point to be discussed here since controversy is still in progress between mycologists. Hesseltine[1] was able to transfer from pure culture a loopful of the growth to the vaginas of normal women and in the majority produce typical clinical moniliasis. It is true that Plass[7] was able to culture the organism from 10 per cent of a control group of patients, but what per cent of the group subsequently developed symptoms was not stated. The very close correlation between clinical signs and laboratory findings in our own group of patients is further proof of the pathogenicity of monilia. Since 79 positive smears were found in 81 patients considered clinically to have vaginal thrush, the necessity of a control group was apparent, so smears were made on 40 pregnant women who denied itching of the vulva, and of the group only 1 was found positive for monilia. This one patient was closely observed for six weeks but at no time showed any clinical evidence of the infection. Also included as controls were smears taken from 14 non-pregnant patients, all of which were negative. Six of the patients in this non-pregnant group complained of itching. Three of them had trichomonas, one a chemical vaginitis, one an intertrigo and one herpes genitalis. All evidence seems to indicate that the monilia organism is not a constant inhabitant of normal vaginas.

Plass[7] demonstrated in 1930 that the organisms responsible for oral and vaginal thrush are identical. He transferred vaginal cultures of monilia to the mouths of newborns to produce typical oral thrush.

How women acquire monilia infections of the vagina is a question yet unanswered. It is probable that pregnant and non-pregnant women have the same opportunities for contracting monilia infections but the vaginas of pregnant women present the more suitable environment. The glycogen content of the vaginas of pregnant women is relatively high as a result of increased estrogen secretion, and the vulvae are bathed with sugar from the urine. This rich soil with its usual high acid content favors growth of the pathogenic fungi.

DIAGNOSIS

In my experience vulvar pruritis occurring in obstetrical patients is more often due to monilia infection than to trichomonas. Trichomonas with clinical signs and symptoms was present in 42 of the group of pregnant patients, while monilia with clinical signs and symptoms was seen in 67. When a pregnant woman complains of itching of the vulva and presents a curd-like or membranous discharge the diagnosis is almost certain to be monilia. A confirmation is easily made by examination of a smear stained by Gram's method.

Culturing for the fungus on Sabouraud's medium is seldom necessary. The experience of this study has been that, if an infection is sufficient to produce symptoms, clinical evidence is most often present and a positive smear most often obtainable. However, it is granted that an occasional case of chronic monilia vaginitis may be overlooked if cultures are completely omitted from the diagnostic armamentarium. It is probable that if all cases of so-called idiopathic pruritis vulvae were carefully investigated, more would be mycotic and fewer idiopathic.

Smears stained by Gram's method are far superior to those stained with methylene blue, safranine and gentian violet. When using the simple stains, spores are easily confused with the nuclei of white blood cells, while filaments can be confused with vegetable fibers, curled edges of epithelial cells and scratches on the glass slide. Many technicians are still using the wet smear method for finding the organism but in our hands the method has been relatively unsatisfactory even when the debris has been dissolved with sodium hydroxide solution. To satisfy ourselves of the accuracy of smears alone for identification of the organism, 273 slides were examined independently by the author and Mrs. Gennusa. The slides included the known positives, 57 controls, and others made from cases of gonorrhea, trichomonas, and so forth. To make sure that clinical knowledge of the cases would not influence the laboratory diagnosis, the slides were numbered and when examined were known by number only. Eighty-nine per cent agreement was reached on the first comparison. The slides disagreed on were reëxamined and the result was 98 per cent agreement.

Filaments and spores were present in every slide called positive. Spores are more abundant than filaments, though filaments are more diagnostic. With a little practice diagnosis is easily made from spores alone. Branching filaments, which are so often described, were seldom seen in this series of stained vaginal smears. Spores are seen arising from filaments but more often are seen as simple asexual budding forms. Filaments are segmented and the segments contain varying amounts of gram-positive granules. The bacterial flora seen in these slides was not constant, it being most often extensively mixed, while the control group of smears from 40 pregnant women uniformly showed large bacilli, presumably Doderlein. As to the cellular element present it was found that polynucleated white blood cells predominated while flat epithelial cells were always present. To determine the exact nature of the curd-like material a satisfactory specimen was fixed in formalin, sectioned and stained with hematoxylin and eosin. The section was found to be composed almost solidly of pus cells through which were scattered filaments and spores.

TREATMENT

As in the case of trichomonas infections, monilia vaginitis has been treated with various and sundry preparations. Most pharmaceutical houses have been able to find someone to report favorably for their preparation in the treatment of the condition. There is some evidence that silver picrate[4, 9] will cure the condition, but in my experience the results have been disappointing. One author reports an almost 100 per cent cure with orthogynol jelly. I have observed gross patches of monilia after two or three weeks of twice daily treatment with this jelly. Merpectogel jelly has likewise been disappointing. Floraquin powder apparently does little toward curing the condition. I saw one patient develop typical thrush after four weeks treatment with floraquin for trichomonas. The sugar and acid content of floraquin would seem to stimulate rather than inhibit the growth of monilia. There is some recently published evidence that thymol[5] is effective in controlling monilia. The element iodine[2] and some of the iodides offer hope. The sulfonamides[6] have been tried by insufflation but the work is not yet conclusive. Alkalis tend to inhibit its growth. X-ray has no place in the treatment of this condition.

Gentian violet has long been accepted as the most successful drug used in treating thrush, and for rapidly controlling symptoms and accomplishing a cure it still holds first place. To remove all the thrush patches before applying the dye is a tedious and difficult procedure as well as a disagreeable one for the patient. The procedure is uncalled for because within twenty-four to forty-eight hours after the vagina and vulva have been painted with gentian violet there is seldom any trace of the thrush patches. Two per cent aqueous gentian violet is the most satisfactory solution for general use, though a 1 per cent solution must often be resorted to. Alcoholic solutions cause burning and it is a debatable point whether or not they have any advantage over aqueous solutions. Five per cent gentian violet has been recommended, but in every one of 11 cases in which it was tried a chemical vaginitis developed after the first or second treatment, and this was especially true when a 5 per cent solution in 40 per cent alcohol was used.

I cannot share the optimism of those who say that the condition is easily cured. It is true that symptoms are usually controlled like magic after one or two treatments with

gentian violet, but controlling symptoms does not spell cure. Of the 81 cases of vaginal thrush here reported only 42 can be used in analyzing the rate of cure. Those patients who had fewer than four treatments with gentian violet and those not followed for at least six weeks after discontinuing treatment are not included. Other cases could have been included had it not been for the patients proximity to term. Twenty-four patients of the 42, or 57 per cent, were considered cured, while 18, or 43 per cent, were considered failures.

A plan of treatment which has cured most cases is to paint the vagina and vulva with gentian violet, but controlling symptoms does other day for three treatments and then every three days for four more treatments. The vaginas of many patients are intolerant to this schedule of treatment. Intolerance is indicated by the appearance of numerous areas which resemble superficial ulcerations. The ulcerations rapidly heal if the interval between treatments is increased or some other fungicidal agent is temporarily substituted. The patient should be instructed to sterilize her underwear and douching apparatus. It is likely that some husbands harbor the organism beneath the foreskin and thus serve to reinfect the woman. The husband should be instructed to paint the glans penis with gentian violet to eliminate this possibility.

Most often monilia infections of the vagina disappear spontaneously following delivery. It is probable that the prolonged period of alkalinity along with the lowered glycogen content of the vagina explain the spontaneous cures.

It is to be stressed again that vaginal thrush is a disease easily diagnosed, the symptoms of which are easily controlled, but a disease which is not easily cured, and in the obstetrical patient one which may cause serious morbidity in the infant.

I wish to express my appreciation to Mrs. Alfina Gennusa, who donated many hours of her time in staining and reading the slides which were necessary in making this report.

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2418 Travis Street.

ABSTRACT OF DISCUSSION

Dr. Karl John Karnaky, Houston: First, I wish to thank Dr. Gardner for this most timely and excellent paper. He is to be congratulated. I hope Dr. Gardner will keep up the good work on monilia.

The fact that monilia may be one of the causes of some of our infant mortality is very interesting.

I have treated several thousand cases of monilia during the last twelve years. My results were poor as far as permanent effect was concerned. Yet the cultures on Sabouraud's media were negative. I use floraquin, which I introduced about ten years ago. This tablet contains di-iodide, 8; hydroxy, 8; oxyquinoline, and organic iodide. The reason that we can obtain results from the use of floraquin is that this tablet is simple to insert, and it can be done by the patient. The tablet method gives just as good results as putting the patients on the table and painting the vagina. To me, that is too much work when simple insertion of the tablets by the patient will do the same thing.

Dr. Gardner's percentages were about the same as mine. In thousands of routine smears in pregnant and non-pregnant women my percentage was 15.5 per cent in the pregnant, and 1.5 per cent in the non-pregnant. The percentage derived by Dr. Gardner was 11.5 per cent and 2.8 per cent.

Monilia is best diagnosed, first, by culture; second, by gross examination; third, by Gram's stain, dry smear and, lastly, by the fresh smear.

Edgar Allen of Chicago obtained almost a 100 per cent result with orthogynol; Schelanski and Bruxton obtained about the same results with silver picrate. My results were not that good with these drugs.

It has been said that floraquin contains glucose and lactose, and should aggravate monilia infection. This has not been found true in several thousand cases in which floraquin was used at the Jefferson Davis Hospital, and in about 200 cases of monilia infection in my private practice. Dr. Gardner said that he has seen a case of monilia following floraquin. I have seen about 75 cases following gentian violet treatment.

I do not use gentian violet any more. Gentian violet is messy, and the results are better when I use floraquin, two tablets night and morning, with no douches for twelve days. In experimental work, smears from the vagina after applying 1 or 2 per cent gentian violet showed me that the monilia in the vagina was not even killed. I sometimes wonder if it is the gentian violet or just the cleaning out of the vagina that destroys monilia. We know that monilia grows very superficially and can be very easily wiped off.

If an associated external monilia is present, which occurs in about 40 per cent, the patients are told not to bathe in the tub but to use sponge baths, to shave the perineum and apply the following prescription: zinc oxide, 20 per cent, 1 oz.; salicylic acid, 4 gr., and to apply this in a thin layer to itching areas as often as they itch; or if the case is of long standing and severe, the following prescription is given: salicylic acid, 0.5 per cent; thymol, 0.5 per cent; boric acid, 3 per cent; denatured alcohol, 25 per cent—to be applied on the external surface with flat cotton balls. No douches are allowed for at least twelve days.

Dr. Burch of Nashville uses the sulfa drug, and he also reports good results. Others use other drugs. We all get the same poor results. I know of no ideal treatment for monilia. Yet, one must clear up all ulcers of the cervix before one gets better results. I still use acid douches. I have taken Sabouraud

cultures in the cases of patients using vinegar douches. I have been unable to find an increase in monilia after the patient had used acid douches.

Monilia will grow at any *p*H. I have seen monilia growing at *p*H from 3.5 to 8-11, so soda or alkaline douches are still not advocated.

THE UNIVERSITY OF TEXAS CHILD HEALTH PROGRAM: ITS BASIC PRINCIPLES AND OBJECTIVES

ARILD E. HANSEN, M. D.
Chairman of the Department of Pediatrics and Director of the University of Texas Child Health Program
GALVESTON, TEXAS

The University of Texas Child Health Program resulted from a bilateral phenomenon, wherein the University, seeking to increase its usefulness in improving the health of the people of the state, united with a foundation seeking a means of fulfilling its purpose of alleviating human suffering.

That the pioneers of Texas recognized the importance of the health of the people of the state, was evidenced during the regular session of the Seventeenth Legislature, in which we find provision was made for the establishment of a medical school as part of the University of Texas. The contribution of the University to the health of the people of Texas has been great, and today it continues to function in relieving human suffering, chiefly by the training of medical personnel. Likewise, a review of the history of Texas reveals that many contributions to the development of the state and the health of its people were made by pioneers who were individualists. Among these we might mention John Sealy, Will Hogg, and in more recent years, M. D. Anderson. Another, and one in whom we are naturally much interested, was William Buchanan of Texarkana. Born in Tennessee, he came to Bowie County as a young man, and with the vigor of youth and clarity of purpose set out on a career of lumbering. Those who knew him speak of his fine character and sincerity; thus it is not surprising that some weeks before his death, he provided for the creation of a foundation, the purpose of which was to be "the alleviation of suffering and diseases of humanity." Because of the special interest Mr. Buchanan had evidenced in children during his lifetime and his awareness of the significance and tragedy of disease in this age group, the members of the Foundation Board felt that his desires could best be carried out by concentration on the problems of child health.

It was thus that the University of Texas, with an increased recognition of the significance of the health of its young citizens brought about by the present war, and the Foundation, which believed that an attack on this problem could be carried out most effectively at a university level, established the University of Texas Child Health Program. Therefore we see that this program developed because both the University, which derives its chief support from the people of the state, and the Foundation, which derives its support from private enterprise, came to the realization that each could best serve its purpose by uniting their efforts. From our viewpoint as physicians, we can see the wisdom in the decision, which resulted after considerable discussion and deliberation between the University authorities and those of the Foundation, that this program devoted to improving the health of children be centered in the School of Medicine and specifically in that department which deals with the child, its development, its care, its diseases and their treatment.

Before we discuss the principles and objectives of the University of Texas Child Health Program, it may be well to consider briefly the problem with which the Program is to deal. Reference to vital statistics discloses that, despite the tremendous improvement in child health throughout the country in recent years, in which, we are glad to say, Texas has participated, considerable room for improvement still exists. Texas as a state has some particular problems in this respect. From an analysis of the causes of death in children of the United States by Hayes and Tandy,* we find that in 1937 more children died in the State of Texas than in any other state, in spite of the fact that we are sixth in rank in total population. In fact, there were 15,499 deaths in children under 20 years of age in Texas, whereas in New York State, with twice the population, there were but 14,925 deaths. No doubt some improvement has been made since that time; however, in the infant age group, the only one for which fairly up-to-date, complete statistics are available, we find that in 1941 more infants still died in Texas before reaching the age of 2 years than in any other state, Texas with but 5 per cent of the total population having 7 per cent of the total deaths in this age group.

Inasmuch as a study of infant mortality rates shows that race is an important factor, at first glance we might think that a high rate in the 15 per cent Negro and 11 per cent Mexican population of the state might alone account for this high death rate. No doubt

Read before the Section on Pediatrics, State Medical Association of Texas, Fort Worth, April 20, 1944; and before the House of Delegates, State Medical Association of Texas, Dallas, May 10, 1944.

*The Child-Monthly News Summary, 4:268, 1940.

the factor is important; however, if we grant a death rate of 72 per 1,000 live births among the Negroes (which is the average for Negroes in the country at large), and a rate of 140 per 1,000 live births among the Mexican infants (which is higher than the average given for counties in Texas which have over three-fourths of their population as Mexicans), calculations still show the rate for the white population to be approximately 42 per 1,000, a figure considerably higher than we know is obtainable. From these figures, as well as from the study of more complete morbidity and mortality rates, which show that many of the deaths in our children are from diseases which could be prevented or at least treated successfully, it is apparent that, although considerable progress has been made, child health in Texas, as in many other states, still constitutes a very real problem.

The importance of this problem to us, as physicians, is very evident, and it is based on the assumption that the State of Texas' greatest asset is the health of its children. This we feel must be conceded, in spite of the emphasis which is sometimes placed upon our more material wealth, such as cotton, cattle, and crude oil. In fact, it is a basic principle which must be adopted by any program attempting to improve child health, and it is one of ours. The second basic principle or concept which we have chosen to guide us in the prosecution of the Child Health Program is equally obvious and inescapable; namely, that the fighter in the front line trenches in the attack on this problem is the practicing physician. Therefore, any program envisaging the importance of child health must revolve about and be carried on in close coöperation with the practicing physician and his organizations.

With the problem with which the University of Texas Child Health Program is to deal and the basic principles guiding it clearly in mind, we come next to a consideration of its aims and objectives. For the purposes of brevity and clarity, these will be presented in modified outline form.

1. ACTIVITIES INTEGRATED WITH THE REGULAR TEACHING PROGRAM OF THE SCHOOL OF MEDICINE

A. *Undergraduate Education:* A large proportion of the average physician's practice is in the childhood age group. This is true for two reasons: (1) children make up about 35 per cent of the total population, and (2) it is in this age group that illness is most frequent and preventive procedures are most necessary. Therefore, the number one aim of this program is to give as fundamental and complete orientation in this field of medicine as possible to the medical students, who are the practitioners of the future. We feel very fortunate that a splendid organization and course in pediatrics is already in existence at the University of Texas School of Medicine. It is true that the time allocated to the teaching of pediatrics is inadequate, but it is planned that this be increased to be more in proportion to the amount of time which actually will be devoted to this field of medicine by most of these students in actual practice. With some additions to departmental personnel, such an increased teaching load can be adequately handled. Plans are also under way to enlarge the physical plant and to increase the clinical facilities, so that the pediatric set-up will be such that we feel this aim of fundamental pediatric teaching can be achieved.

B. *Graduate Education:* It is a well-known fact that the pioneers in pediatrics, both by practical clinical application and by fundamental research on problems related to child health, have contributed greatly to the improved state of the health of our children. Therefore, another aim of our program is the training of specialists in the field of pediatrics, both those who will practice their specialty in different communities of the state and those who may continue in the academic field, devoting themselves to pediatric teaching and research. It can be fairly stated that, other factors being equal, the greater the number of pediatrists in a community, the better the health of the children of that community. Thus we believe that increasing the number of specialists in pediatrics will contribute to the improved health of the children of the state. Plans for this include:

1. A regular system of fellowships and residencies for recent graduates to enable them to be certified as specialists by the American Board of Pediatrics.

2. The establishment of special Buchanan Fellowships for those already practicing in the state who might wish to work in the hospital at several periodic, shorter intervals so that they, also, will be able to meet the requirements for certification as specialists.

C. *Fundamental and Clinical Research:* It is well recognized that advancement and better understanding of problems are achieved by thorough study. Thus another aim is to provide the opportunity for, and to encourage active research programs on problems which pertain to child health, on the part of both the staff and students taking part in the University of Texas Child Health Program.

2. ACTIVITIES NOT INTEGRATED WITH, BUT RELATED TO THE REGULAR TEACHING PROGRAM OF THE SCHOOL OF MEDICINE

A. *Postgraduate Education:*

1. Actual work in hospital. We hope to be able to provide facilities for phsicians practicing in the state to come into the hospital for periods of a month or two to allow them to become more completely acquainted with newer pediatric procedures and techniques.

2. Special courses, clinics, and conferences. These sessions will be centered at the School of Medicine in Galveston at first, but it is planned that later some may be held at various other localities throughout the state. We hope to invite some of the outstanding physicians in the country and in the state to participate in these sessions by presenting the William Buchanan Lecture and by leading or taking part in various round table discussions and clinic presentations.

B. *Encouragement of Coöperative Clinical Research Problems on Child Health.*

3. COOPERATIVE ACTIVITIES WITH OTHER ORGANIZATIONS THROUGHOUT THE STATE INTERESTED IN CHILD HEALTH

A. *Participation in Joint Programs* of teaching, research, and other activities stressing child health with such organization as:

1. Other departments of the School of Medicine.

2. Other schools or divisions within the University of Texas, such as the Schools of Nursing and Dentistry, the Hogg Foundation for Mental Hygiene, and the Extension Division.

3. Departments of Pediatrics of the other medical schools of Texas.

4. Medical societies and organizations.

5. State departments and institutions, such as the State Board of Health and the State Department of Education.

6. Other societies interested in the welfare of children, such as the State Tuberculosis Association, and Parents and Teachers Associations.

B. *Child Health Council:*

At the recent Scientific and Clinical Pediatric Conference held at Galveston, it was the consensus of those present that to facilitate a more effective attack on the problems of child health in the State of Texas, the formation of a Child Health Council should be strongly considered. It was felt by those present that this should consist of physicians, with representatives from the various pediatric groups constituting the nucleus. Its chief function would be to study and know the problems of child health, to stimulate investigations on such problems, and in turn to advise, integrate, and actually initiate activities which would help to improve the health of the children of Texas.

In summary, may I say that these are the general plans for our Child Health Program, as we see them today. But aside from the facts that our ultimate goal is to contribute to the attainment of the best possible state of health of the future citizens of Texas and that the program will be carried out in complete coöperation with the physician and his organizations, we have no actual blueprint to follow. Therefore, we will maintain an open mind regarding our methods and will welcome at all times suggestions and discussion regarding these.

We feel we are fortunate in having the interest and support for our program of such outstanding men as the members of the Board of Regents and President Rainey of the University of Texas, of Chauncey D. Leake, Vice President and Dean of its School of Medicine, and Dr. Stanley J. Seeger, Chairman of the William Buchanan Foundation. In addition, I wish to say that especially encouraging to me has been the spirit of coöperation of the physicians of the state whom I have had the good fortune to meet, of such men as your Secretary, Dr. Holman Taylor, and the various pediatrists who attended and contributed greatly to the success of our recent conference in Galveston. Such coöperation as this, I am sure, will go far toward assuring the ultimate success of the attack on the child health problem in the State of Texas.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, New York, 1945. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. James A. Ryan, Covington, Kentucky, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Titus Harris, Galveston, President; Miss Lucille Allen, Highland Park High School, Dallas, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Lubbock, October 10, 11, 1944. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers, Abilene, Secretary.

Fourteenth District Society, Denison, December. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

NAVAL MEDICAL OFFICERS' COMMISSIONS WANTED

The National Naval Medical Center of Bethesda, Maryland, is endeavoring to collect for its archives a complete set of commissions issued to Naval medical officers and signed by past presidents of the United States. Libraries or physicians that have in their possession such old commissions and are willing to turn them over to the Center are requested to do so. They will thus be permanently cared for and there could be no more fitting enshrinement.

ROUTINE CHEST ROENTGENOGRAMS OF HOSPITAL PATIENTS URGED

Pulmonary tuberculosis is present in a significant proportion of adult patients admitted to general hospitals and remains undetected during the hospital stay unless all patients receive routinely a chest x-ray examination. Such unrecognized tuberculosis is a hazard not only to the patients themselves but also to the hospital employees who may be exposed to it. One of the measures essential to the solution of this problem is routine chest x-ray examination of employees.

Although the discovery of tuberculosis among hospital employees is necessary for the protection of both employees and patients, the detection of the disease in patients is obviously of equal if not greater importance. It is hoped, therefore, that hospitals, physicians, and others will give more recognition to the existence of this problem and to the need of a complete plan of action, including routine chest x-ray of all adult admissions as well as periodic examination of medical students, nurses and all other employees.—*N. Y. State Dept. of Health, "Health News" May 8, 1944.*

GELATIN AS BLOOD PLASMA SUBSTITUTE

Gelatin specially prepared physically and chemically can be used as a substitute under some circumstances for blood plasma, according to a report just released by the Subcommittee on Blood Substitutes, of the Division of Medical Sciences of the National Research Council. The report is published in *The Journal of the American Medical Association* for May 27.

The preparation and use of gelatin for transfusions does not however, in any way, decrease the need for the procurement of blood by the American Red Cross and the preparation from it of blood substitutes for the armed forces.

When whole blood, plasma or human serum albumin are available they are the preparations of choice to be employed in the treatment of hemorrhage or shock. The use of gelatin for transfusions in the field is limited to tropical or subtropical regions because solutions gel at about 20 degrees Centigrade (68 degrees F.). Gelatin solutions probably do not contribute significantly to nutrition, their only place in medical treatment being to restore a loss of circulating blood volume in acute injury of various types.

PENICILLIN THERAPY IN CAVERNOUS SINUS THROMBOPHLEBITIS

The successful treatment of a type of sinus infection which until a few years ago was universally fatal is reported in *The Journal of the American Medical Association* for September 2 by W. M. Nicholson, M. D., and W. B. Anderson, M. D., Durham, S. C.

Cavernous sinus thrombophlebitis is a condition in which there is an infection, at the site of a thrombus or blood clot, of the wall of a vein in the cavernous sinus, a cavity containing blood, which is located at the base of the brain in back of the eye. It generally is secondary to some other infection such as a boil or infected hair follicle. Until 1937 only seven recoveries had been reported. Since the advent of the sulfonamides several instances of recovery have been reported but the fatality rate still has been quite high.

Drs. Nicholson and Anderson report the recovery of a patient from penicillin treatment after sulfadiazine had failed. He was a farmer in whom the condition developed after receiving a smart blow across the bridge of his nose, on the right nostril of which was a small boil. Thirty-eight days after admission to the hospital the patient was discharged.

A PNEUMATIC LEG SPLINT

A pneumatic leg splint, quickly and easily applied, which is recommended only as an emergency and transportation unit, is described in *The Journal of the American Medical Association* for August 5 by G. J. Curry, M. D., Flint, Mich.

"This piece of fracture equipment," he says, "is designed to employ the use of air properly encased between two layers of supporting material. It is an inflation unit for emergency care of fractured lower extremities. The two layers are cut to selected

measurements and sealed at the edges. The air intake in through a valve located at either the upper or the lower portion. . . . Hooks are attached to the anterior . . . edges and evenly spaced. The unit is folded around the affected part and laced with leather lacing material in the same fashion as a boot. Inflation follows, either by mouth blowing or by the use of a pump. . . ."

He says it is consistently comfortable, pressure is low, constant and evenly distributed; can be used as a pressure dressing for complicating lower extremity burns; it floats, thus being useful as a splint for a sailor abandoning ship, and "it may be useful as an added piece of fracture equipment aboard ambulances, emergency hospital services and in the surgical divisions of the armed forces."

MORE PROTECTIVE DEVICES IN HANDLING BORIC ACID URGED

The need for more careful protective devices in the handling of boric acid is apparent. *The Journal of the American Medical Association* for April 22 declares in discussing recent press reports of the death of 4 infants and the serious illness of 20 others, some of whom may also die, as a result of the drug being accidentally administered in milk formulas given to the infants.

"This occurred," *The Journal* says, "in a New London, Conn., hospital. Boric acid crystals, according to the reports, were incorporated in the milk formulas by mistake because of their similarity in physical appearance to dextrose crystals. Unfortunately this is not the first time that boric acid has been responsible for accidential infant deaths in a hospital. In 1927, through a confusion of technic, infants in the nursery of a Chicago hospital were given boric acid solution instead of drinking water, and 6 of them died. Although these accidents and a few others like them have occurred only rarely and have been widely separated geographically and by time, the need for more careful protective devices is apparent. Boric acid, although it has only minor toxic properties as compared with other substances, is extensively used in the care of the skin and eyes of infants, so that it must be strictly segregated from those substances which may be incorporated into infant foods."

DIPHTHERIA TOLL HIGH IN HOLLAND

Diphtheria has increased thirty-fold in occupied Holland, with a weekly average of 1,800 new cases reported for the country. According to information gathered by medical personnel of the Nazi government, deaths resulting from diphtheria totalled 2,388 in 1943 as compared with the 75 reported in 1939 prior to the Nazi occupation.

The tuberculosis toll has doubled within this period, the reports also reveal. In 1939 the number of deaths due to this disease was 3,595, while in 1943 it rose to 6,382.—*The Netherlands Information Bureau.*

Present experience in England presents a warning to public and industrial health workers that must not be overlooked. This is the present sharp increase in tuberculosis, which has been especially large among women in general and particularly among young women. The cause for this increase in the tuberculosis death rate is the most difficult health problem confronting the health authorities in England. It is felt that overcrowding, poor nutrition, worry and many other factors are all contributory, but as yet the one chief factor has defied recognition, as well as the reason for the predominance among young women.—*J. A. M. A.* (March 11), 1944, M. H. Kronenberg, M. D.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during September:

Dr. J. W. Young, Roscoe—*Eclampsia, therapy* (11 articles).

Dr. T. G. Jackson, Carbon—*Leukemia* (23 articles).

Medical Library, AAF Regional Hospital, San Antonio—(1 journal).

Dr. W. E. Payne, Slaton—*Condyloma* (5 articles).

Dr. Floyd S. Franklin, Dallas—(1 journal).

Dr. F. R. Rugeley, Wharton—(4 journals).

Lt. Col. Merritt P. Starr, San Antonio—(2 journals).

Maj. Gen. Claude V. Birkhead, San Antonio—(3 books).

Dr. Ernestine Smith, Amarillo—*Syphilis, congenital* (14 articles).

Dr. G. M. Tulloch, Temple—(11 journals); (12 journals).

Dr. F. E. Clark, Cisco—*Sex, frigidity* (8 articles).

Rev. D. C. Dove, Dallas—*Socialized Medicine* (7 articles).

Dr. N. A. Elder, Nixon—*Strongyloidosis* (11 articles).

Dr. J. M. Woodall, Big Spring—*Vitiligo* (10 articles).

Southwestern Medical Library, Dallas—(6 journals).

Dr. Heinrich Lamm, La Feria—*Uterus, excision* (15 articles); *Muscles, scalenus* (6 articles); *Anesthesia, in gynecology and obstetrics,* (5 articles).

Dr. D. K. Robison, Rocksprings—*Arrhythmia, auricular flutter* (10 articles); *Hair, removal* (11 articles).

Scott & White Clinic, Temple—*Sacrococcygeal Region, tumors* (6 articles).

Capt. James H. Ferguson, Camp Maxey—(1 journal).

Dr. R. Spencer Wood, Waco—*Pellagra* (17 articles).

Dr. H. E. Chandler, Mt. Vernon—*War, postwar problems* (9 articles).

Maj. Louis I. Sokol, Camp Maxey—*Thrombophlebitis* (10 articles).

Dr. M. W. Rogers, Rule—*Syphilis, therapy* (5 articles).

Maj. Paul H. Dube, Amarillo (1 journal).

Accessions

Baltimore, Williams & Wilkins—Le Comte: Manual of Urology; Bisham: Malaria, Its Diagnosis, Treatment and Prophylaxis.

Chicago, Year Book Publishers—Kerr and Gillies: The Urinary Tract, A Handbook of Roentgen Diagnosis.

Minneapolis, Modern Medicine—Modern Medicine Annual, 1943.

Summary

Reprints Received, 536	Local Users, 31
Journals Received, 170	Borrowers by Mail, 24
Items Consulted, 102	Packages Mailed, 28
Items Taken Out, 155	Items Mailed, 225

Total Items Consulted and Loaned, 482

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during September:

Harris Memorial Methodist Hospital, Fort Worth —*"Globulin Modified Antitoxins"* (available for loan through the courtesy of Lederle Laboratories, Inc.).

Fort Worth Army Air Field, Fort Worth—*"Know for Sure"* (available for loan through the courtesy of Lederle Laboratories, Inc.).

Bethania Hospital, Wichita Falls, Texas—*"Malaria."*

Southwestern Medical College Dallas—*"Vitamins"* (available for loan through courtesy of Lederle Laboratories, Inc.).

Experience has shown that it is often difficult—if not impossible—to obtain the examination of all individuals who are known to have had intimate contact with a newly discovered case of tuberculosis. This is particularly true of the older person who frequently refuses examination either because of apathy or because of fear that something will be found which will force him to change his mode of life.—Raymond E. Miller and Beatrice Henderson, Am. Rev. Tbc., August, 1942.

NEWS

State Hospital Superintendents Changed.—The State Board of Control announced recently the following changes of superintendents at State Hospitals: Dr. Roy Cameron Sloan, who has been assistant superintendent at the Terrell State Hospital, will succeed Dr. William Thomas, who voluntarily retired September 15. Dr. Sloan until recently was battalion surgeon at Camp Bowie.

Dr. Bruce Allison will succeed Dr. M. A. Beckman at the Abilene State Hospital, who resigned effective September 1. Dr. Allison has been assistant superintendent of the Wichita Falls State Hospital.

Dr. David McCullough, assistant superintendent of the State Tuberculosis Sanatorium, has been named superintendent of the Kerrville Tuberculosis Hospital for Negroes, succeeding Dr. H. Y. Swayze, who resigned September 1 to enter private practice.—*Austin American.*

Venereal Disease Patients Have High I. Q., Major Morris Goldberg, administrator of the rapid treatment venereal clinic in Waco, told the Waco Lions' Club recently. He stated that 95 per cent of the patients range in age from 15 to 19; that practically all have reached at least the twelfth grade; that they read and write well and are certainly not morons. He further asserted that 85 per cent are "repeaters," but they are not prostitutes; they are children who are "seeking excitement." Major Goldberg expressed the opinion that poverty plays a minor role in the tragedy; that the parents of most of these patients are making more money than ever before. He expressed pessimism regarding efforts at rehabilitation, and asserted that when the girls are cured they merely shift their location and are dragged to another quick treatment center.

Major Goldberg stated that the hospital, which was remodeled from an older structure, cost $100,000 and costs over $100,000 a year to operate. He stated that it is well equipped and that it will compare favorably with any hospital in Texas. He commended it to the city planners as an ideal expansion in hospital facilities during the postwar period.—*Waco Tribune.*

New Negro Hospital for Houston.—Plans are being made to erect a Negro hospital of thirty-three beds in Houston, which will ultimately be increased to 150 beds, informs the Houston *Chronicle.* A campaign is under way now to raise $130,000 for the institutiton, which will be called the St. Elizabeth's Hospital. It will be directed by Catholic Sisters, who will train young Negro women as nurses and hospital executives. Houston Negroes have already raised $10,000 for the project, and the site has been purchased.

Houston has a Negro population of approximately 105,000. It now has one Negro hospital with a capacity of thirty beds which has been in operation since 1927. Negro patients unable to pay are also accepted at Jefferson Davis, Herrmann, and Memorial Hospitals.

University of Texas News.—Col. W. Lee Hart, M. C., U. S. A., chief surgeon of the Eighth Service Command, Dallas, was made an honorary member of Alpha Omega Alpha at a special ceremony at the University of Texas Medical Branch, Galveston, August 24. Colonel Hart delivered an address to the student body, under the auspices of Alpha Omega Alpha, on the postgraduate medical education program of the Eighth Service Command. Participating in the ceremony and discussion were Dr. Donald Slaughter, dean of Students of Southwestern Medical College, Dallas; Col. Franklin Ebaugh, neuropsychiatry consultant for the Eighth Service Command, and Col. K. E. Miller, consultant in public health for the Eighth Service Command.

The amphitheater in the out-patient clinic building of the University of Texas Medical Branch, Galveston, has been named Randall Hall, in honor of the late Doctor Edward Randall (1860-1944), Professor Emeritus of Therapeutics, former Chairman of the Board of Regents of the University of Texas, and Chairman of the Board of Directors of the Sealy and Smith Foundation.

Recent additions to and promotions in the staff of the University of Texas School of Medicine, Galveston, are as follows:

Thurlo B. Thomas, Ph. D., appointed Assistant Professor of Anatomy; R. I. Wise, Ph. D., Assistant Professor of Bacteriology, appointed assisting immunologist, John Sealy Hospital; D. Bailey Calvin, Ph. D., promoted to professor of biological chemistry and associate dean; Frank W. McKinley, Jr., M. D., appointed assistant professor of internal medicine; E. J. Lefeber, M. D., appointed assistant professor of internal medicine and physician in charge of the student health service; William C. Levin, M. D., appointed instructor in internal medicine; Jack R. Ewalt, M. D., promoted to professor of neuropsychiatry and director of the electroencephalography unit of the John Sealy Hospital; Stephen Weisz, M. D., promoted to associate professor of neuropsychiatry; J. H. Benton, M. D., appointed instructor of neuropsychiatry; Edgar Ezell, M. D., appointed instructor in neuropsychiatry; J. L. Jinkins, M. D., promoted to associate professor of obstetrics and gynecology; A. J. Jinkins, M. D., promoted to assistant professor of obstetrics and gynecology; H. H. Sweets, Jr., M. D., promoted to associate professor of pathology and director of the John Sealy clinical laboratory; N. D. Schofield, M. D., promoted to assistant professor of pathology; Hilda Wiese, Ph. D., appointed research associate in pediatrics; E. P. Jones, M. D., appointed instructor in pediatrics; H. J. Ralston, Ph. D., appointed to assistant professor of industrial hygiene in the department of preventive medicine and public health; R. M. Moore, M. D. (Colonel, M. C., U. S. A.,

on leave for military service), promoted to professor of surgery; T. G. Blocker, M. D. (Major, M. C., U. S. A., on leave for military service), promoted to associate professor of surgery; R. H. Rowland, M. D., appointed instructor in surgery; O. W. Stehouwer, M. D., appointed instructor in surgery; Fred W. Shelton, M. D., appointed instructor in otorhinolaryngology.

J. Allen Scott, Ph. D., associate professor of epidemiology and medical statistics at the University of Texas School of Medicine, Galveston, is participating in the organization work of a parasitology survey in the Amazon area at Melem, Brazil, under the auspices of the Rockefeller Foundation and the Office of Coordinator of Inter-American Affairs. He will return to his duties at Galveston in November.

Mark R. Everett, professor of biochemistry at the University of Oklahoma School of Medicine, gave a special lecture recently at the University of Texas Medical Branch, Galveston, on "Metabolic Factors in Clinical Medicine."

During the past summer, a weekly seminar conference was held at the University of Texas Medical Branch, Galveston, on the general topic of "Pain." These seminar discussions were planned to bring about closer coördination of effort between the preclinical scientific group and the clinical staff of the John Sealy Hospital. A similar series of seminar discussions have been arranged for the fall session on "Cellular Permeability and Water Balance." The meetings will be held Monday noon beginning September 25 and will close December 11.

The Southwest Section for the Society for Experimental Biology and Medicine was organized recently at a meeting at the University of Texas School of Medicine, Galveston. Meetings are planned to be held three times a year in rotation at the Southwestern Medical College, Dallas, Baylor University College of Medicine, Houston, the University of Texas, Austin, and occasionally at the University of Oklahoma Medical School, Oklahoma City.

Expansion Program for University of Texas Medical School Urged.—Dr. C. D. Leake, dean and executive vice-president of the University of Texas School of Medicine, Galveston, has recommended in a comprehensive report to the medical committee of the Board of Regents of the University a long-range expansion program estimated to cost approximately four million dollars to meet the physical needs of the School of Medicine at Galveston, together with an outline of the present immediate needs, informs the Galveston *News*.

Dr. Leake recommended in the long-range program the following:

"A $2,000,000 general hospital building ($1,500,000 of this amount has been offered by the Sealy and Smith Foundation).

"An addition to the main laboratory building, $1,000,000.

"A library, auditorium and general administration building, $300,000.

"Reserve facilities for electricity for the power house and water reservoir, $100,000.

"An addition to the Rebecca Sealy nurses' residence, $250,000.

"A building for a school of public health, which probably could be housed in the main building of the medical college if other departments are transferred.

"Dr. Leake also recommended the transfer of the State Psychopathic Hospital to the medical college to provide exceptional facilities for psychiatry.

"Immediate needs as outlined by Dr. Leake include: a convalescent home for children (this has been provided through the acceptance by the board of regents of the island home of Mr. and Mrs. Marco Stewart), estimated repair costs, $10,000; pediatric clinical laboratories, $2,500 which will come from the Buchanan Foundation; pediatric experimental facilities, $15,000 from the Buchanan fund; housing for women medical students, $40,000, and locker rooms for hospital help, $12,000."

Dr. Leake also recommends that legislative appropriations be increased to provide appropriate salaries to insure additional teachers necessary to reach a reasonable approach of the optimum teacher-student ratio for American medical schools of one instructor to ten students per course, and that a salary scale be provided that will assure competent teachers and research workers. The salary range in the pre-clinical departments of the better medical schools of the United States, it is stated, is as follows: for full-time faculty members—professor, $12,000 to $16,000; associate professor, $6,000 to $10,000; assistant professor, $4,500 to $8,000; instructor, $3,000 to $6,000; assistant, $2,000 to $3,600.

Refresher Courses for Netherlands Physicians.—After the liberation of Holland, a group of physicians recruited from American medical schools and hospitals will leave for that country to give a series of four-weeks post-graduate refresher courses in Dutch universities, which will be sadly disorganized by four years of Nazi occupation. The group will be composed of nine medical specialists and the courses will cover eight specialties. Lectures have been prepared in both the English and Dutch languages. The Netherlands government will finance the traveling and other personal expenses of the American physicians who will, however, receive no extra or special compensation for their work in Holland.

American Board of Obstetrics and Gynecology Part I Examinations will be held in various cities of the United States and Canada, February 3. All applications for these examinations must be in the Office of the Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania, by November 15. Further information and application blanks may be secured from the Office of the Secretary of the Board. All candidates are required to be out of medical school not less than eight years and in that time must have completed an approved one year internship and have had at least three years of approved special formal training, or its equivalent in the seven years following the internship. The Part I written examination will be limited to a maximum period of three hours. Case records and all obstetrics reports submitted at this time which do not include measurements either by calipers and, as indicated, by acceptable x-ray pelvimetry, will be considered incomplete. The Part I examination consists of a written examination and submission of twenty-five case history abstracts.

American College of Surgeons Cancels 1944 Clinical Conference, announces the Board of Regents, after consultation with officials in Washington. This marks the third consecutive year that the American College of Surgeons has cancelled its annual meeting as coöperative action in connection with the war.

At the annual meeting of the Board of Regents, which will be held later in the year, fellowship in the College will be conferred *in absentia* on the class of initiates of 1944, as there will be no convocation exercises. At the same time the list of hospitals, cancer clinics, medical services in industry, hospitals conducting programs of graduate training in surgery, and medical motion pictures, that meet the College standards, will be approved and later published.

All present Officers, Regents, Governors, and Standing Committees will continue in office.

War conditions permitting, the Clinical Congress will be held in the fall of 1945.

The Dallas Southern Clinical Society announces the following guest speakers for the Fifteenth Spring Clinical Conference, to be held March 19-22, 1945, in the Hotel Adolphus:

J. Arnold Bargen, M. D., Mayo Clinic, Rochester, Minn.—Gastro-Enterology.

Charles A. Doan, M. D., The Ohio State University, Columbus, Ohio—Internal Medicine.
Samuel C. Harvey, M. D., Yale University School of Medicine, New Haven, Connecticut—Surgery.
Charles B. Huggins, M. D., The University of Chicago, Chicago, Illinois—Urology.
Donovan J. McCune, M. D., Columbia University, New York—Pediatrics.
Joe Vincent Meigs, M. D., Harvard Medical School, Boston, Mass.—Gynecology.
Ira H. Lockwood, M. D., Director of the Department of Radiology, Research Hospital and Wm. Volker Clinic, Kansas City, Mo.—Radiology.
LeRoy A. Schall, M. D., Harvard Medical School, Boston, Mass.—Otolaryngology.
Wm. H. Sebrell, Jr., M. D., Washington, D. C., National Institute of Health at Bethesda, Md.—Basic Science.
Edmund B. Spaeth, M. D., The University of Pennsylvania, Philadelphia, Pa.—Ophthalmology.
Richard H. Sweet, M. D., Harvard Medical School, Boston, Mass.—Surgery.
George W. Thorn, M. D., Harvard Medical School, Boston, Mass.—Internal Medicine.

Military Personals

Major M. K. Leggett, M. C., of Houston prior to the war, writes interestingly of conditions on Saipan. Major Leggett states that during the invasion campaign he did a lot of surgery but of late had been busy with routine surgery and other details, including assistance in the planning of a hospital. He advises that an excellent hospital will be constructed and before many months other conveniences will be added on the island, which is a beautiful one.—*Houston Chronicle.*

Lt. Stanley Cox, M. C., U. S. N., who has been overseas for two years in the Pacific area, has been on leave at his home in Groesbeck. His next station will be the Naval Base Hospital, Corpus Christi.—*Groesbeck Journal.*

Lt. Col. H. M. Winans of Dallas, who organized and headed the Baylor Unit in Italy for many months, has been appointed medical consultant for Brooke General Hospital, Fort Sam Houston, states the Dallas *News.* Colonel Winans directed the evacuation unit during the trying days of the Anzio beachhead campaign in Italy but was returned to the United States a few weeks ago because of a serious case of virus pneumonia.

The Houston *Chronicle* of September 5 published a picture of a medical unit in New Guinea, consisting of fourteen physicians, eight of whom are from Houston, as follows: Major D. M. Paton, Major J. B. Falls, Capt. Mat F. Strashun, Capt. E. A. Chandler, Capt. Eugene L. Slataper, Capt. Alfons Salinger, Capt. Charles N. Nester, and Lt. Col. Jessie Griffin Heard.

Lt. Jack McCurdy, U. S. N., son of Dr. and Mrs. Carl McCurdy of Marshall, recently arrived back in the states after service with the Marines. Lieutenant McCurdy was wounded on Guam. He is a veteran of the Marshall Islands campaign.—*Marshall News-Messenger.*

Capt. S. W. Tenney, of Marshall, recently arrived in New Jersey, after service overseas as a fleet surgeon in Scotland, North Africa and Corsica.—*Marshall News-Messenger.*

Dr. Delmar R. Gard, associate professor of pediatrics, University of Texas School of Medicine, now on leave of absence while serving with the armed forces, was recently promoted to major in the medical corps of the Army of the United States, according to an announcement made by General Dwight Eisenhouer's headquarters.—*Galveston News.*

Major Spencer A. Collom, Jr., of Texarkana, prior to entering the service, has returned to active duty at a general hospital somewhere in Italy, one and one-half months after a gallbladder operation on June 7. Major Collom is serving with the Vanderbilt Hospital Unit. The general hospital now has 2,000 beds, with expansion facilities to 3,000. It has served many of the wounded from the Anzio beachhead and Cassino front. The death rate, despite the battle casualties from these highly destructive fighting areas has been held to 0.2 per cent. The hospital is a center for chest injuries. Major Collom is chief of the section on orthopedics.—*Texarkana Gazette.*

Dr. I. A. Ulert of Houston, was recently tendered a commission in the medical corps of the Army of the United States and will report to Carlisle Barracks, Pennsylvania, October 4.

Dr. James W. Finney, who recently completed an internship at Parkland Hospital, Dallas, reported for active duty as a first lieutenant in the medical corps of the Army of the United States, at Carlisle Barracks, September 13.

Personals

Dr. Byford H. Denman of Huntington has returned from postgraduate study in New York City.—*Huntington News.*

Dr. O. M. Watson of Bridgeport, in convalescing satisfactorily following a recent operation, informs the Bridgeport *Index.*

Dr. Neal Morris Atkins recently assumed duties as city-county health officer of Waco, succeeding Dr. Paul Wermer, now on leave of absence with the armed services.—*Waco News-Tribune.*

Mrs. Anna Estes, mother of Dr. T. G. Estes of Waxahachie, and widow of the late Dr. C. P. Estes of Hereford, died September 7, in a Dallas Hospital.—Dallas *News.*

Mrs. Mildred Carolyn White Brann, wife of Dr. E. C .Brann of Dallas, died September 1. Mrs. Brann is survived by her husband, a daughter and a son.—*Dallas News.*

Marriages

Dr. Marjorie Ferrell, daughter of Mr. and Mrs. O. L. Ferrell, Sr., of Bullard, was married September 1 to Major Leonard Bauman Roper of Bullard. Major Roper is in the Army Air Forces. The couple left after the ceremony for a wedding trip to New York City and other eastern points.

SOCIETY NEWS

Austin-Waller Counties Society

August 8, 1944

Austin-Waller Counties Medical Society members and their wives were guests of Dr. and Mrs. O. A. Roensch at their camp house, near Bellville, August 8. Following a brief business session, a picnic supper with all the trimmings was served. Boat riding was also enjoyed.

Gray-Wheeler Counties Medical Society

August 17, 1944

(Reported by H. L. Wilder, Secretary)

Cyanosis in the Newborn as Seen in General Practice—W. C. Jones, Pampa.
Cyanosis in the Newborn—G. H. Garrison.

Gray-Wheeler Counties Medical Society met August 17, at the Schneider Hotel, Pampa, with thirteen members and visitors present. Following dinner, the scientific program as given above was carried out.

The talk of Dr. Garrison on cyanosis in the newborn was illustrated with lantern slides, showing enlarged thymus, atelectasis, and cardiac anomalies. The paper by Dr. Jones and Dr. Garrison's talk were followed by a round table discussion of the subject, which included a consideration of the various methods of analgesia and anesthesia as causes of cyanosis.

Tarrant County Society

September 5, 1944

(Reporrted by X. R. Hyde, Secretary)

Modern Nutrition (motion picture)—Shown through the courtesy of E. R. Squibb and Son.

Tarrant County Medical Society met September 5, in the Medical Arts Building Auditorium, Fort Worth, with thirty members and one visitor present.

The motion picture listed above, which was a sound film, in color, was shown.

T. C. Terrell, a trustee and member of the House of Delegates of the State Association, and C. O. Terrell, delegate to the State Association, gave highlights of the recent meeting of the House of Delegates held at Dallas, especially with regard to the increase in State Association dues. They pointed out that the purpose of the increase was to make up a deficit in the State Association Treasury caused by the loss of dues of members serving in the armed forces, and to provide funds to carry on an educational campaign in opposition to socialized medicine. After January 1, they advised that dues of members in the armed forces would be $1 annually, to cover medical defense. They expressed the opinion that county medical societies would pay the $1 annual dues of each of their members now serving in the armed forces.

Harold M. Williams, chairman of the Public Health Advisory Committee, spoke in regard to a city ordinance providing for pasteurization of cow's milk sold in Fort Worth. The committee recommended that the Society endorse the action of the Department of Public Health and Welfare of Fort Worth in proposing such ordinance and recommending to the city council that it be adopted.

The matter was discussed by Bert Ball, Tom B. Bond, T. M. Jeter, and C. O. Terrell.

On motion of H. M. Williams, seconded by W. C. Lackey, it was voted that the Society go on record as endorsing the proposed ordinance. The motion carried.

Val D. Scroggie was elected to membership by transfer from the Bowie County Medical Society.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

STATE EXECUTIVE BOARD MEETING

The Woman's Auxiliary of the State Medical Association met September 8, at "Steepside," the home of Dr. and Mrs. S. E. Thompson of Kerrville, with fifty-four members and guests in attendance. Mrs. S. E. Thompson, State President, presided.

Mrs. Victor Keidel, Fredericksburg, gave the invocation.

Mrs. J. E. Gaines, president of the Kerr-Kendall-Bandera-Gillespie Counties Medical Auxiliary, made everyone feel welcome with her cheery greetings.

Minutes of the last board meeting were read and approved.

In the absence of Mrs. E. W. Jones, the President appointed Mrs. Marvin Duckworth, Cuero, to act as parliamentarian.

The following budget for the year's expenses, signed by Mrs. R. B. Homan, El Paso, chairman, Mrs. W. A. Minsch, San Antonio, and Mrs. A. J. Streit, Amarillo, was read by the secretary and approved upon motion of Mrs. E. H. Marek, Yoakum:

President's expenses	$ 400.00
Treasurer's expenses	10.00
Stationery	65.00
Typing of list of members	5.00
Secretary's expenses	10.00
Incidentals	10.00
Auditing	35.00
Dues to A. M. A.	544.25
TOTAL	$1,079.25

The secretary brought a suggestion from Mrs. W. A. Minsch to the effect that each year the president and treasurer be authorized co-signers at the Federal Reserve Bank in Dallas to assure access at any time to war bonds on deposit there.

Mrs. O. M. Marchman, Chairman of the Memorial Fund, explained that the only bonds owned by the Auxiliary were those belonging to the Memorial Fund. Mrs. Marchman further stated that there were three authorized signatures, which seemed adequate in any emergency. No action was taken on the suggestion of Mrs. Minsch.

Upon motion of Mrs. A. B. Pumphrey, immediate past state president, it was voted to instruct the Resolutions Committee to draft resolutions expressing the unanimous voice of the Auxiliary against any legislation interfering with the private practice of medicine.

Mrs. Richard Keys, Amarillo, chairman of the Resolutions Committee, offered the following resolutions, which were unanimously adopted:

Resolved, that the Woman's Auxiliary to the State Medical Association of Texas go on record as opposing any legislation interfering with the private practice of medicine; and be it further

Resolved, that we are unalterably opposed to the Wagner-Murray-Dingell Bill now before Congress. We respectfully request and urge our Congressmen and Senators to oppose the passage of this bill.

Mrs. A. B. Pumphrey, Fort Worth; Mrs. Frank Haggard, San Antonio, and Mrs. H. Leslie Moore, Dallas, each reported highlights of the National Auxiliary meeting, particularly with regard to changes in the Constitution, and the stand taken by the Texas delegation. The major changes in the Constitution were: (1) exclusion of state presidents from the Executive Board of the National Auxiliary, and (2) nominations from the floor rather than by a nominating committee. The Texas delegates felt that the exclusion of the state presidents from a voice on the National Board interfered with the democracy of the organization since it would reduce the personnel of the board to about fifteen. The Texas delegation also expressed its conviction that competitive elections would only foster discord. The proposed changes passed by a small majority.

The Executive Board was unusually fortunate in having splendid representation from the State Medical Association. Dr. H. F. Connally, Waco, President of the State Medical Association; Dr. Sam E. Thompson, Chairman of the Board of Trustees; and Dr. E. C. Ferguson, Beaumont, brought thought-provoking and challenging suggestions pertaining to Auxiliary growth, coöperation with the medical profession, and pertaining to legislation. Synopses of their addresses follow:

Address of Dr. Connally

I have come to this meeting to do honor to your President and the fine group of intelligent women composing the Executive Board of the Woman's Auxiliary to the State Medical Association, rather than to make a speech.

Speaking as President of the State Medical Association of Texas I want you know that we have a real task to perform during the coming year if we succeed in stopping the threat of socialized medicine, which surely is going to come before the Congress in a more attractive form to the public than it appeared in the last Congress.

In addition to that work we have another very important program in our Post War Planning for our fine group of young doctors who have gone into the Service, and for those of us who are trying to care for the needs of the public during this mighty

struggle. One of our Home Front duties is to preserve the homes and the fields of practice of our fine young doctors who, across the seas—and in the many army camps and hospitals of this country, are taking care of the sick and injured, incident to the great war we are now about to win.

People are too prone to overlook the credits that are due these doctors and to underestimate the sacrifices they are making. We want you ladies to know how much we are relying on your organized help in assisting us to accomplish our objectives in these proposals.

When you enter the political and economic life of the medical profession, by your high standards in life you will raise the standards of the medical profession and place our organization on a higher plane, thus making our position stronger in the scientific world, and certainly you will add great strength to our political standing.

As I go over this State in the interest of our objectives, meeting with the various District Societies, I expect to urge doctors to see that their wives join their county medical auxiliaries. The larger membership you have the more you can accomplish.

There is one phase of our Post War Work in which you can be very helpful—maintaining the Home and Community of every doctor who has gone into the Service, in such an appreciative attitude toward his patriotic service that when he returns his practice will be waiting for him. Make it your job to see that no unworthy physician may come into his community and gain such favor with his patrons that he may have to look to new fields for a respectable living.

As our year advances, our program will surely expand and we will be calling on you for more help; we hope you will be ready for our call. I want President Mrs. Thompson and her fine Executive Board to know I will be at her call wherever and when I may add to the effectiveness of their program. I assure you it has been a pleasure for me to appear before you at this meeting.

Address of Dr. S. E. Thompson

Not infrequently, both individuals and organizations possess undiscovered powers, undiscovered strength. This is what I want to discuss with you this morning. Your admonition to be brief will be adhered to.

Not until 1918 did Union Labor discover its powers. Just at the time we were well into World War I, the representatives of Union Labor went to Washington and demanded of The President that an eight hour day be established. It was not a request. It was a demand and it was granted. The power of organized strength was behind it. The opposition of the owners of the railroads was futile. Since 1918 the power of strong pressure groups has influenced much of our national legislation. This power increases yearly.

Apparently your organization has not discovered this power existing in well controlled groups, groups that act as one man. At least you have never used it.

Our defeat in the last Legislature was due solely to a lack of unified effort on the part of doctors. They did not agree. They did not work as a unit. The results were defeat! And we had it coming to us.

You have over two thousand members. Each of your members could easily get ten letters from your husband's satisfied patients. Twenty thousand letters to members of the Legislature would be a deciding factor in any legislation offered for the welfare and protection of the health interest of our people.

At this time, including doctors in the Armed Service, we have over four thousand members. Ten letters to the Legislature secured by each of us would not be ignored. Our forty thousand letters, with your twenty thousand, would pass any worthwhile legislation or defeat anything harmful.

But we must be sure of one thing. We should not use our influence and power for selfish purposes. We should work for the welfare of our people and for the advancement of their interests. If you will do this, the influence of your undiscovered power will be unlimited.

While there is power in organized pressure groups, there is likewise an equal danger. Pressure groups, working for the advancement of selfish interest to the exclusion of the interest and welfare of all the people and the nation, should be restricted and controlled. Unrestricted, uncontrolled selfish power is always dangerous. Capital power, organized labor power, when used for selfish purposes, are equally dangerous and should be restricted within legitimate limits.

Let this control your activities and you will find no limits to the good you can do. My faith in you, your purposes, and your efforts is unbounded.

Remarks of Dr. Ferguson

I appreciate the unanticipated pleasure of meeting with you today. My remarks shall be purely extemporaneous, built around the philosophy of Lincoln.

I should like to state that I do not feel that it is wise for either the doctors or the Woman's Auxiliary to try to enter the field of general politics. But I do feel that it is well to understand the policies of the Government, at this time as stated in the following ten points:

1. You cannot bring about prosperity by discouraging thrift.
2. You cannot strengthen the weak by weakening the strong.
3. You cannot help small men by tearing down big men.
4. You cannot help the poor by destroying the rich.
5. You cannot lift the wage-earner by pulling down the wage-payer.
6. You cannot keep out of trouble by spending more than your income.
7. You cannot further the brotherhood of man by inciting class hatred.
8. You cannot establish sound security on borrowed money.
9. You cannot build character and courage by taking away a man's initiative and independence.
10. You cannot help men permanently by doing for them what they could and should do for themselves.

The philosophy behind the Executive order setting a top limit on what man is permitted to earn is the philosophy of levelling off at the top, of taking from those who have and giving to those who have not. How different the principles of Lincoln, Civil War President, who said:

"Property is the fruit of labor; property is desirable; is a positive good in the world. That some should be rich shows that others may become rich, and hence is just encouragement to industry and enterprise . . . Let not him who is houseless pull down the house of another, but let him labor diligently to build one for himself, thus by example assuring that his own shall be safe from violence . . . I take it that it is best for all to leave each man free to acquire property as fast as he can. Some will get wealthy. I don't believe in a law to prevent a man from getting rich; it would do more harm than good."

Furthermore, I believe we should know the trend to Socialized Medicine by which the Government would destroy the best interests of the doctor and the medical groups generally and with their destruction

would seriously interfere with the medical welfare of the general population. It seems to me that by a unified effort it may be possible to limit or modify the trend toward Socialization, making it worthwhile both for the profession and for the public.

The meeting recessed at noon to partake of a well appointed luncheon at the Heart of the Hills Inn, courtesy of the Kerr-Kendall-Bandera-Gillespie Counties Auxiliary, honoring Mrs. Sam E. Thompson. The hostess auxiliary was most gracious and thoughtful in providing transportation not only for the beautiful drive to the Inn but also earlier in the day from the hotel to "Steepside," with generous stops along the way at attractive antique shops.

Business was resumed at 3:30 p. m. with the treasurer, Mrs. F. R. Rugeley, Wharton, reading the following report:

TREASURER'S REPORT

(From May 6, 1944, Through August 31, 1944)

General Fund		
Balance, May 6, 1944, as per audit		$ 701.30
Receipts		16.00
Total		$ 717.30
Disbursements		
Mrs. Ramsey Moore, 4th Vice-President, expenses	$ 6.75	
Mrs. Ramsey Moore, essay prizes	25.00	
Total	$31.75	31.75
Balance, August 31, 1944		$ 685.55
Memorial Fund		
Balance, May 6, 1944, as per audit		$ 370.84
Receipts		705.00
		$1,075.84
Disbursements—None		
Balance, August 31, 1944		$1,075.84
Student Loan Fund		
Balance, May 6, 1944, as per audit		$5,374.87
Receipts		10.00
Disbursements—None		
Balance, August 31, 1944		$5,384.87
Library Fund		
Balance, May 6, 1944, as per audit		$1,092.50
Receipts		60.00
		$1,152.50
Disbursements—None		
Balance, August 31, 1944		$1,152.50
Total Cash in Bank, August 31, 1944		$8,298.76

Respectfully submitted,
MRS. FRANK R. RUGELEY, Treasurer.

Upon motion of Mrs. P. R. Denman, Houston, it was voted to accept the treasurer's report as read.

Mrs. Scott C. Applewhite, San Antonio, brought greetings from the past state presidents, as follows:

GREETINGS FROM THE PAST PRESIDENTS

When Mrs. Thompson wrote to me asking that I bring these greetings, the thought occurred to me of the many classifications in which Past Presidents are placed. Some think they are egotistical, some domineering, but for the most part it is felt the Past President never knows when to relinquish her authority. As one works throughout the years, serving on different committees and in different offices, by the time she assumes the Presidency, the work has become an intricate part of her life. As she finishes her term of office as President and reflects upon her year's work and the mistakes that were made, love for the organization and its future success prompt her to give her successor the benefit of her experience. This motive is often misconstrued by the general membership.

During World War I we were thrown together a great deal in our war efforts. We realized what this companionship and fellowship meant, and, as a result, we organized the Auxiliary. It has been most gratifying to note how the Auxiliary has grown not only in membership but activities. The past few years we have been in the midst of World War II, and, at its close, the medical profession will meet the greatest challenge of its life. If they fail, we fail, and this must not happen.

I am sure every Past President joins me in extending best wishes to the Auxiliary for its future success.

Mrs. Thompson reported the resignation of Mrs. C. P. Yeager, Corpus Christi, Historical Chairman, due to ill health, and appointed Mrs. Marvin Duckworth, Cuero, to fill this vacancy.

Telegrams were read by the secretary from Mrs. J. P. Helmick, president of the Woman's Auxiliary to the Southern Medical Association; Mrs. H. S. Renshaw, Fort Worth; Mrs. J. Frank Clark, Abilene, and Mrs. H. B. Allen, Brownwood, second vice-president of the State Auxiliary, expressing regret over their inability to attend the meeting and wishes for a successful session.

Mrs. F. F. Kirby brought personal greetings from Mrs. W. A. Wood, Waco, Archives Chairman, and from Mrs. G. V. Brindley, Temple, past president of the State and Southern Auxiliaries.

Officers and committee chairmen were introduced and given an opportunity to discuss their plans for the year's work.

Mrs. C. B. Alexander, San Antonio, President-elect, spoke briefly but thoughtfully from Psalm 121:1, "I will lift up mine eyes unto the hills, from whence cometh my help."

Mrs. Ramsey Moore, Dallas, first vice-president, spoke briefly.

Mrs. Paul H. Power, Waco, fourth vice-president, offered alternative projects for the year—visual film and essay contest. Mrs. Power suggested that each county auxiliary promote the project which seemed the more stimulating to their particular group. The title of the essay contest for the year is, "What Physical and Mental Defects Disqualified So Many of Our Men for Army Service?"

Mrs. E. L. Howard, Fort Worth, State Publicity Secretary, made an appeal for all available worthwhile material for publication in the JOURNAL. Mrs. Howard stressed the value of presenting the material in a narrative and readable form.

The Recording Secretary expressed the hope that the many forms sent during the year to each county president might be combined. The suggestion was made with the thought that county presidents will fill one long form accurately and promptly, whereas a great number of requests is discouraging and leads to neglect. Suggestions were made from the floor, followed by a vote to have the president and secretary investigate the possibilities and compile a form.

Mrs. L. L. Keyser, Chairman of the Library Fund Committee, presented her plans to interest hospitals over the state in a memorial library fund for hospitals.

Upon motion of Mrs. O. M. Marchman, Dallas, Chairman of the Memorial Fund, it was voted to empower the Memorial Fund Committee to purchase another one thousand dollar war bond.

Mrs. J. E. Hogan, Big Spring, Chairman of U. S. Nurses Recruitment Committee, appealed to all members to promote recruitment of nurses in their areas.

Upon motion of Mrs. P. R. Denman, the Board extended a rising vote of thanks to our president and to the hostess auxiliary for their splendid work and cordial hospitality.

President Mrs. Thompson addressed the meeting as follows:

ADDRESS OF MRS. THOMPSON

It is a pleasure, and I am sure it will be an inspiration, to meet with you. I am both happy and honored to have you meet in my home.

The formation of new friendships and the grow-

ing and ripening of older ones bring us closer together. These friendships thus formed are among the most pleasant outgrowths of our Auxiliary work. Life without such friendships is a desolate waste.

There probably has never been in your life or mine a period holding so many vital problems which must be managed and solved. The happiness, welfare and character of the world will depend upon these solutions. The challenge is to us and to our people; we must and will meet it.

The whole world is in a mad, cruel, destructive conflict. Every faculty and all the ingenuity of the best brains are consecrated on one idea—the quickest and most efficient method of wholesale destruction, destruction of property and human lives. This mad destruction will end, and humanity and right will prevail.

But before this world can really live again there will be much work to do; much sane, sound thinking must be done. There should be no idle hands, no idle brains. Out of all this will grow our most serious problems of reconstruction.

The first task is to win this war, and we are winning it. We were caught not only unprepared but divided. Our people did not want war and many of our people did not think it could come. When our President asked Congress to extend the draft act, it passed by only one vote, and at that time war was at our doorstep. But when Pearl Harbor came and when Germany declared war on us, we stood together as one man. In spite of everything our Nation has done a marvelous job.

Wars not only kill and destroy, but hurt many other things; morals are hurt, recklessness grows, conservatism turns into wildness, sound economics are brushed aside. National extravagance and waste are products of war. There can be no such thing as an economical war.

What are we going to do about it as an organization? How are we going to help our people keep their feet on the ground? There is a lot we can do about it. We can keep our own thinking straight and our objectives sound. As individuals and as an organization, we can set the good example of clean, sane living. Good citizenship, sound economics, and individual responsibility, accepted and lived up to make men and women, and men and women make the world.

We can be a part of our communities, meet with clubs and other organizations, preach this doctrine when the right time and opportunity present themselves.

Notwithstanding the war, scarcity of tires, rationing of gasoline and the difficulties of traved, our Auxiliary must function and serve. We cannot assemble as often as we would like nor as often as may be necessary, but we can, by keeping active, efficient women in key positions and by correspondence, carry out our objectives. Now is the time for us to demonstrate our resourcefulness and our ability to do the job under adverse circumstances.

Our objectives for this year, if we put them over, and we will, will be an outstanding service to the people of the State.

Health education can go a long way in the prevention of disease. Good health is largely a question of intelligence. Disease is the product of ignorance and carelessness. Disease can and should be prevented. Who is better fitted than the doctor's wife to create an interest in health education.

Hygeia should be in every home. *Hygeia* read in every home will lay the foundation for a sound health program.

Disease and its prevention should be taught in every school from well prepared textbooks. This subject can be so prepared and so presented that the average child 10 years of age can understand it.

Periodic examinations will aid tremendously in keeping people well and in the prevention of serious illnesses. Doctors get most of their money from neglected cases. The cost of examinations is slight, the saving in time and money may be enormous. Serious and prolonged illnesses is the reason why we must have prepaid medical insurance. The man in the blue shirt cannot pay for it. It will take the shoes and the bread from his children.

Health and medical legislation must be looked after. A united effort on our part could have prevented the passage of the chiropractic law in the last Legislature. If each member of our Auxiliary had secured ten letters from their friends to members of the Legislature, protesting the passage of such a bill, it would not have passed. We learned our lesson then and now know the value of what we can do to prevent the passage of such laws. The fine work done last year to defeat the Wagner-Murray-Dingell bill is an outstanding example of what can be done with all shoulders to the wheel.

Our Library is the measure of our cultural background. Its service to our doctors and through them to our people justifies anything we can do for it.

Our Memorial Fund is serving a very worthy cause. To me we are one big family and we are our brother's keeper.

In thinking of our Student Loan Fund—what could be more gratifying than to know you have helped some boy finish his medical education. Sometimes it takes such a small amount of money to finish. We can give that little.

And now again we have accepted a big order for the year. It will take each shoulder to the wheel. I am counting on your help.

During an open forum the principal matters discussed pertained to the National Auxiliary—the constitutional changes and the *Bulletin*. Mrs. F. N. Haggard, San Antonio, suggested we subscribe to the *Bulletin*, read it regularly and then report whether or not we think it valuable.

The Board was delighted to emphasize its appreciation of a well planned meeting and happy fellowship by extending again a rising vote of thanks at the suggestion of Mrs. A. B. Pumphrey, who had been in conference when the other courtesy was extended.

There being no further business the meeting adjourned at 4:40 p. m.—Mrs. Mark H. Latimer, Recording Secretary.

SOUTHERN MEDICAL AUXILIARY MEETING CANCELLED

Mrs. S. F. Harrington, Dallas, Councilor for Texas of the Woman's Auxiliary to the Southern Medical Association, advises that because of war conditions, it has been found necessary to cancel the meeting of the Woman's Auxiliary to the Southern Medical Association, scheduled to be held in St. Louis, November 13 to 16. The Southern Medical Association will hold only scientific sessions.

The present officers, chairmen and councilors will be continued in office for another year, advises Mrs. John Pierpont Helmick, of Fairmont, West Virginia, president of the Southern Auxiliary.

AUXILIARY NEWS

El Paso County Auxiliary Executive Committee members and members of the Board of Directors were entertained the morning of September 8 at a coffee, by the president, Mrs. William J. Davis of El Paso. Following the coffee, a business meeting was held. Ten members of the executive committee and the board were present.

It was decided to hold regular monthly meetings in the private homes of various members of the Auxiliary with business sessions to be followed by a "tea."

BOOK NOTES

[1]**The Modern Management of Colitis.** By J. Arnold Bargen, M. D., M. S., F. A. C. P., Associate Professor of Medicine, Mayo Foundation, Rochester, Minn.; Chief of the Section on Intestinal Diseases, Division of Medicine, Mayo Clinic; Secretary, American Gastroenterological Association; Chairman, Section on Gastroenterology and Proctology, A. M. A., Cloth, 301 pages. Price, $5.00. Springfield, Illinois, Charles C. Thomas, 1943.

In the words of the author, "The Prevalence of diarrhea and associated intestinal disorders in times of stress, strain, turmoil and war" attests to the propitious timeliness of Dr. Bargen's book.

With 170 most instructive pictures in a brief 310 pages of the author's vast clinical and research experience, together with occasional excerpts from authoritative "colleagues," a veritable storehouse of information readily accessible is afforded the busy physician, whether he be in the military or civilian practice.

The attractiveness of the book is further enhanced by practical points in the management of colitis under such headings as: thromboulcerative colitis as relates to marriage and pregnancy; the increased incidence of carcinoma complicating colitis originating in childhood; the importance of dental foci and of pulmonary and related gastro-intestinal disorders, as for example gallbladder disease; recognition of the carrier and management of relapse in ulcerative colitis; indications for ileostomy; for colon resection; or colectomy; sudden death from ruptured cecum; Promine and its contraindications in the treatment of tuberculous ulcerative colitis; the "pathologic physiology" of the irritable colon.

There are presented valuable techniques of the rectal examination, the proctologic diagnosis, warm stool examination, roentgenoscopic study of the normal and diseased colon, and of dietary, occupational and physical therapy to restore ulcerative colitis patients from a state of semi-invalidism.

Such information on any one of the above phases of colitis could well be worth many times the cost of the book. In addition to being informative and reassuring, Dr. Bargen has devoted himself so thoroughly to his subject and to the individual cases cited that he stimulates the physician to more complete realization of the necessity for his very best personal care of patients harboring ulcerative colitis or related disorders of the bowel.

[2]**Virus Diseases in Man, Animal and Plant.** By Gustav Seiffert. A Survey and Reports Covering the Major Research Work done during the last decade. Cloth, 332 pages. Price $5.00. New York, Philosophical Library, 1944.

This book is a survey of the momentary status of virus investigation with special reference to a consideration of the most recent literature, especially foreign. The extensive literature about virus and virus diseases is condensed in a satisfactory manner. The book will bring to those who wish to occupy themselves more closely with the virus problem the important contributions, and at the same time will open questions still waiting to be answered in virus investigation. References to detailed summaries of each virus and virus disease, as well as an excellent bibliography, are given; however, the majority of the references are German.

A general discussion presents historical data, manifestations and nature of virus, physical and chemical properties, size, filtrability, crystallization, behavior toward chemical and physical influences, variability of virus and pathogenesis, immunity, and epidemiology of virus diseases.

The largest section is devoted to discussions of the above topics, plus differential diagnosis in many cases, for each virus disease. About sixty certain and questionable virus diseases of man, mammals, and birds are included. The author indicates certain lack in our knowledge of each disease, and mentions controversial points.

Virus-like organisms such as the stimuli of pleuropneumonia, agalactia, and related organisms are discussed. Ten pages are devoted to a discussion of virus diseases of plants. The rickettsia and rickettsial diseases are inadequately discussed in seven pages; one page is devoted to bartonella and grahamella, and six pages to bacteriophages.

Methods used in virus investigation are explained in enough detail to familiarize the reader with this aspect, but more detailed explanations would be needed by the investigator. The purpose of the author is well served, however, in that it is intended only as an introduction, and many questions are answered for those who do not have time or interest to search in the extensive literature.

[3]**Practical Malaria Control.** A Handbook for Field Workers. By Carl E. M. Gunther, M. D., B. S., D. T. M. (Sydney) Field Medical Officer, Bulolo Gold Dredging Limited, Territory of New Guinea. Foreward by Prof. Harvey Sutton, O. B. E., M. D., F. R. A. C. P., B. Sc., D. P H., F. R. San. I. Cloth, 91 pages. Price, $2.50. New York, Philosophical Library, 1944.

Dr. Gunther's book "Practical Malaria Control" is a brief and easily readable presentation of the modern concepts of malaria as he has encountered it as a public health worker, as a physician engaged in industrial hygiene, and as a military surgeon. Dr. Gunther's background as a physician and an entomologist is highly recommended by Dr. Harvey Sutton, who wrote the Foreword of the book. The author emphasizes that this Handbook does not pretend to be a treatise on malaria but merely an outline of the practical problems involved. He divides his material into four parts:

Part 1.—Antimalarial Measures: Elimination versus Control. Here he discusses rather completely lists of conditions dealing with the habits and whereabouts of anopheline mosquitoes as malaria transmitting agents. He lists the variety of breeding places of the mosquitoes encountered near civilian life and industrial plantation developments, and also military campaigns in a tropical region which is British owned and British managed. It is believed from reading the discussions outlined by Dr. Gunther that many of the common factors of malaria transmission and malaria control are very similar to the fundamental factors of malaria encountered in the United States. In his description of the military campaigns he stresses very elaborate precautions taken by the British army to protect their soldiers from malarial infection.

Part 2.—The author discusses the diagnosis of malaria and lists six clinical forms of malarial fever. The grouping is slightly different from our American system; however, when it is all summarized we find it is the same clinical conditions we encounter in America, only arranged differently in his manuscript. The discussion of diagnosis of the six different clinical forms are rather general in character; however, the sequence of listing is easy to follow and very interesting material. Clinical

[1]Reviewed by Cecil O. Patterson, M. D., F. A. C. P., Dallas Texas.

[2]Reviewed by Robert I. Wise, Ph. D., Assistant Professor of Bacteriology, the University of Texas School of Medicine, Galveston, Texas.

[3]Reviewed by C. P. Coogle, M. D., Malariologist, Texas State Department of Health, Houston, Texas.

signs discussed by the author are similar to the clinical signs encountered in malaria in the United States. The listing of differential diagnosis is more typical of the tropical area in which he has worked than would be encountered in Texas. His technique of laboratory aids to diagnosis is the modern concept practiced the world over and his reliance on blood readings is similar to our American system.

Part 3.—In this chapter the author discusses treatment. General principles outlined consist of oral medication of quinine or atebrin; his secondary antimalarial drug is plasmoquinine. He mentions a combination of atebrin and quinine and thinks there is no advantage in the tasteless equinine. He prefers oral medication to intramuscular or intravenous medications; however, like the American custom he believes in intravenous injections for malaria in selected and emergency cases. He mentions abscess and sloughing from intramuscular injections of quinine. He sums up the treatment in the following paragraph: "The oral administration of quinine bihydrochloride, in powder form, in gelatine capsules, is the treatment of choice. When oral administration is not possible either quinine or atebrin mussonate can be given intramuscularly until oral administration becomes possible. When full doses of quinine cannot be tolerated modified doses reinforced by atebrin should be given. Neglected malaria and gross enlargement of the spleen respond best to an initial course of quinine with a combined follow-up course of the two drugs." He mentions the general and special treatment for the various clinical forms of malaria; however, his opinion is definitely toward the use of oral quinine as an antimalarial drug to conquer the disease.

Part 5.—He discusses, in Part 5, black water fever as a complication of malaria and briefly explains that the three great points in treating black water fever are: rest and careful nursing to conserve the heart, copious fluids to keep the kidneys flushed, and cautions that the patient be kept on the alkaline side.

The book should be interesting to health officers and to sanitarians, particularly in the malaria belt.

DEATHS

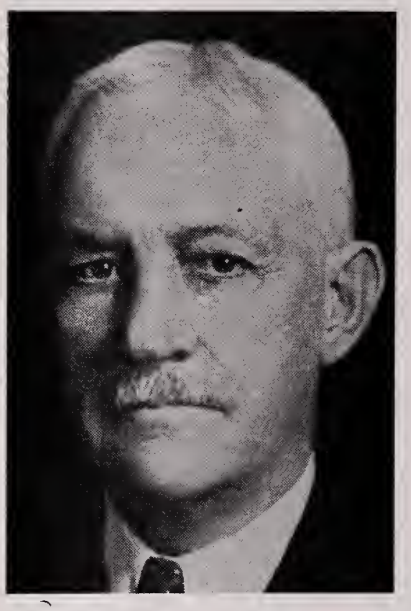
Dr. Edward Randall of Galveston, Texas, died August 12, 1944, after a brief illness.

Dr. Randall was born October 7, 1860, in Huntsville, Texas, the son of Dr. Samuel and Texana (Garrett) Randall, of a long line of medical ancestry. He came with his father to Galveston immediately after the Civil War and, following his father's death in 1866, he was reared by an uncle, Dr. Edward Randall, from whom he received his inspiration to study medicine. His mother died prior to his coming to Galveston. His academic education was received in the Preparatory School of the Reverend Dr. Pendleton, General Lee's chief of artillery at Lexington, Virginia, and Washington and Lee University, from which latter institution he received the B. A. degree in 1879. While there he was elected to the honorary scholastic fraternity of Phi Beta Kappa. His medical education was received in the University of Pennsylvania, from which he was graduated in 1883. He served an internship in Blockley Hospital, Philadelphia, following which he took postgraduate work at Heidelberg and at Berlin, where he studied under Virchow and E. Martin; then at Munich, under Winckel, and lastly at Vienna under Carl Braun and Bilroth. He began the practice of medicine in Galveston in 1886. Two years later he was elected to fill the chair of Materia Medica and Therapeutics in the Texas Medical College and Hospital, Galveston, and in 1891 he was elected to the same chair in the medical department of the University of Texas, after its establishment in Galveston by vote of the people of Texas. He held this position until 1928, when he resigned, having served the institution for more than thirty-seven years. At that time, he was elected Emeritus Professor by the Board of Regents of the University, in appreciation of his many years of service. He had long been an active member of the executive committee of the College, elected by the faculty. After his resignation, he was elected by the Board of Regents as a life member of the executive committee and life member of the faculty. He was succeeded as professor of materia medica and therapeutics by his son, Dr. Edward Randall, Jr.

Until the removal of the College of Pharmacy of the University to Austin, Dr. Randall taught classes in that school, and for many years was an instructor in the John Sealy College of Nursing. For thirty years he was the only member of the faculty of the University of Texas who signed every diploma issued by the College of Pharmacy, College of Nursing and the College of Medicine. Dr. Randall was one of two remaining members of the original faculty of the University of Texas.

In 1902, Dr. Randall was appointed a member of the board of managers of the John Sealy Hospital, when it was operated by the city of Galveston, and he served as its president for more than twenty-five years.

In 1929, Dr. Randall was appointed a member of the Board of Regents of the University of Texas. He successively became first vice chairman and chairman of the Board, serving in this all important capacity until 1940. As chairman of of the Board of Managers of the John Sealy Hospital, chairman of the Building Building Committee of the Sealy-Smith Foundation, and chairman of the Board of Regents of the University, many buildings connected with the John Sealy Hospital and the Medical College were planned and erected under his direction. Among these facilities are John Sealy out-patient clinic building, the Rebecca Sealy Nurses Home, power plant and laundry building, the laboratory of the medical College, the John Sealy Memorial Laboratory of Research, recreation equipment and other improvements. This program also included the Children's Hospital and Negro Hospital. One of Dr. Randall's last acts to further the building program and advancement of medicine in Galveston was the offer of $1,500,000 to the Board of Regents of the University of Texas, as president of the Sealy-Smith Foundation, for a new general hospital.



DR. EDWARD RANDALL

Dr. Randall had been a member continuously of the Galveston County Medical Society, State Medical Association and American Medical Association,

throughout his professional career. He was a member of the Eighth, Ninth and Tenth District Medical Societies, and the Southern Medical Association. In 1937, he was given the highest honor that can be conferred by the State Medical Association of Texas, in his election as "Member Emeritus." Dr. Randall was a member of the Beta Pi academic and Alpha Mu Pi Omega medical fraternities.

In addition to his career as an outstanding internist and medical educator, as well as administrator of business affairs of the University and the medical school, Dr. Randall found time to be a leader in civic and cultural activities of the city of Galveston. He served for thirty years as a member of the Board of Trustees of the Rosenberg Library, and as its president from 1930 to the time of this death. He was an active member of the Episcopal Church, in which he held the highest office available to a layman. He was a member of the board of directors of the News Publishing Company, and the American National Insurance Company. In December, 1943, he was elected President of the Philosophical Society of Texas at its 106th anniversary meeting.

On the occasion of his fiftieth anniversary in the practice of medicine, he received acclaim from distinguished men of medicine throughout the nation. The late Dr. W. J. Mayo stated that, "Dr. Randall is one of those rare physicians who possesses social understanding, who realizes not only the physical condition of the patient but the mental condition, and who in addition to giving scientific treatment of the disease from which the patient suffers, takes into consideration the emotional states which so frequently accompany diseased conditions."

The late Dr. W. S. Carter, former dean of the medical branch of the University of Texas, then associate director, medical sciences, the Rockefeller Foundation, said:

"Dr. Randall's outstanding professional career shows that he at all times regarded medicine as both an art and a science. The greatest reward that can come to one in such a long period of service is the appreciation, gratitude and real affection of those to whom he has given his skill unstintingly. . . . Dr. Randall's delightful personality, his many acts of thoughtfulness and kindness and his high ideals will never be forgotten by those who have enjoyed the privilege of association with him."

Dr. O. H. Plant, then professor of Pharmacology, State University of Iowa, said:

"Among the group of great men who made up the faculty of the medical school when I was a student there, Dr. Randall stands out in my mind as a great teacher, not only in his ability to instill a knowledge of medicine, but, what is of equal importance, by his devotion to the highest ideals and what constitutes a true physician, and his precept that the fundamental duty of the profession he so ably exemplifies is disinterested service to others."

Judge R. L. Batts, Austin, former chairman of the Board of Regents of the University, said:

"Dr. Randall brought to the work (of the Board) learning, culture, tact, firmness, courage, practical common sense, business capacity and training, and an enlightened sense of justice and right. As a member of the building committee these qualities, together with a cultured taste, a sense of beauty and proportion, acumen, capacity for detail and infinite patience have rendered possible a contribution by him to Texas of value not to be estimated."

The late Dr. George E. de Schweinitz, Emeritus Professor of Ophthalmology, University of Pennsylvania, said of Dr. Randall that "to possess his friendship is a privilege. Instinctively men and women turned to him, trusted him, and their trust was never betrayed."

Of the great body of Texas alumni who sat at the feet of Dr. Randall as a teacher, the words of the late Dr. H. Y. Benedict, president of the University of Texas, are particularly characteristic of him:

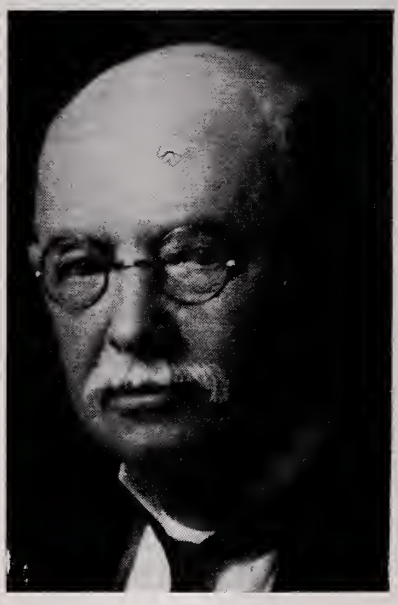
"Where can one find a more perfect example of the gentleman, using this word in its broadest and noblest meaning, than Dr. Edward Randall?"

On the occasion of his death, Dr. A. O. Singleton, Professor of Surgery, University of Texas, School of Medicine, said that "He has contributed more than any other man to the success and greatness of the medical department of the University of Texas."

Dr. Randall was married April 30, 1889, to Miss Laura Ballinger, daughter of Judge and Mrs. W. P. Ballinger, pioneer citizens of Galveston. He is survived by his wife; one son, Dr. Edward Randall, Jr., Galveston, and three grandchildren.

Dr. S. B. Kirkpatrick of Taylor, Texas, died August 4, 1944, of uremia, at the age of 92.

Dr. Kirkpatrick was born December 22, 1851, on the Cumberland River, near Gainesboro, Tennessee. His early education was received in the schools of his community. Early in his career, he clerked in a general store and on a steamboat on the Cumberland River. He then moved to Texas and shortly thereafter began the study of medicine in the Missouri Medical College, from which he was graduated in 1883. He began the practice of medicine at Celina, Texas, where he remained four years. He then practiced two years in Commerce, following which he located in Waco, where he was in practice until 1920. He then removed to Thrall, where he continued in practice unitl 1935, at which time he retired. However, he continued to serve as city health officer for Thrall and was local surgeon for many years for the Missouri-Pacific Railroad. A few months ago, he moved to Taylor to make his home with his son, Dr. B. A. Kirkpatrick.



DR. S. B. KIRKPATRICK

Dr. Kirkpatrick became a member of the State Medical Association in 1884 and had been a member since that time through the county medical societies of his places of residence. He had served both the Milam County Medical Society and the McLennan County Medical Society as secretary. In 1934, he was elected an honorary member of the State Medical Association, which membership status continued during the remainder of his life. While living in Waco, he had a part in the organization of an anatomical and pathological society. He was a prolific writer on medical affairs, particularly for the laity regarding public health, and was local correspondent for a number of newspapers, including the Taylor *Press*, Austin *American*, Houston *Chronicle*, San Antonio *Light*, Dallas *News*, Waco *Times-Herald*, and Thorndale *Champion*. He maintained throughout his life a great interest in civic affairs. He was an

ardent champion of the independent practice of medicine and used his pen to every advantage in its defense. He will be long and favorably remembered by those who knew him.

Dr. Kirkpatrick was married in 1873 to Miss Roxie Hamilton of Tennessee. He is survived by his wife; one daughter, Mrs. Gordon L. Mann of Hollywood, California, and three sons, C. V. Kirkpatrick, Dallas; O. H. Kirkpatrick, Oklahoma City, and Dr. B. A. Kirkpatrick, Taylor.

Dr. W. G. Brymer of Bandera, Texas, died August 12, 1944, of heart disease.

Dr. Brymer was born June 8, 1872, in Burleson County, Texas, the son of O. W. and Betty Brymer. His preliminary education was received in Baylor University. His medical education was obtained in the College of Physicians and Surgeons, Dallas, from which he was graduated in 1905. He had taken postgraduate work in Tulane University College of Medicine, and was a licensed pharmacist, also, having passed the Texas State Board of Pharmacy in 1907. After graduation, Dr. Brymer served an internship in the Parkland Hospital, Dallas. He had lived and practiced in Duncan, Oklahoma, eight years; Dewar, Oklahoma, twelve years; San Antonio, three years, and in Castroville, Texas, before locating in Bandera in 1934, which was his home for the remainder of his professional life.

DR. W. G. BRYMER

Dr. Brymer was a member for many years of the State Medical Association and American Medical Association through the Bexar County Medical Society while residing in San Antonio and through the Nine Counties Medical Society after his removal to Castroville and while residing at Bandera. He had served the Nine Counties Medical Society as president. He had been a member of the staff of the Santa Rosa Hospital. While practicing in Dewar, Oklahoma, he was chief surgeon of the Consolidated Fuel Company of Dewar. He had served as examiner for the Selective Service System in Bandera.

He was a member of the Baptist Church and of the Lions' Club at Bandera. Dr. Brymer kept abreast of the advances in medicine during his professional life, and he will be greatly missed by his community, in which he was highly regarded.

Dr. Brymer is survived by his wife, the former Miss Josephine Maud McKinney, to whom he was married October 6, 1900 in Story, Oklahoma. He is also survived by a son, W. G. Brymer, Jr., Bandera; three daughters, Mrs. O. E. Hutzler, Bandera; Mrs. Earl Gossett, San Antonio, and Mrs. S. W. Godwyn, Washington, D. C.; three sisters, Mrs. John A. Wagner, Mrs. J. B. Melville and Mrs. George K. Jowers, all of San Antonio; and five brothers, J. H. Brymer, Big Wells, Texas; E. L. and I. W. Brymer, Duncan, Oklahoma; R. F. Brymer, Uvalde, Texas, and T. D. Brymer, Caney, Kansas.

Dr. Green Berry Taylor of Cameron, Texas, died September 2, 1944, of coronary occlusion.

Dr. Taylor was born April 6, 1875 in Troy, Bell County, Texas, the son of John and Jane Taylor. His academic education was received in Baylor University. His medical education was obtained in the Memphis Hospital Medical College, Memphis, Tennessee, from which he was graduated in 1900. He then took postgraduate work at the Chicago Eye, Ear, Nose and Throat Hospital, following which he located in Cameron, where he had practiced this specialty for forty-three years.

DR. G. B. TAYLOR

Dr. Taylor was a member continuously of the State Medical Association and American Medical Association for many years, through the Milam County Medical Society, which Society he had served as secretary for an extended period of time. He was also a member of the Central Texas District Medical Society, of which he was president in 1912. He served the Santa Fe Railroad as local oculist for thirty-five years and the Southern Pacific Railroad as local oculist for thirty-six years. He was a member of the Odd Fellows and the Knights of Pythias. Dr. Taylor will long be remembered for his genial, friendly disposition and genuine interest in medical affairs.

He is survived by his wife, the former Miss Ida Looney, to whom he was married in 1901 at Burlington, Texas. He is also survived by a son, Jack Taylor of Cameron, and three sisters, Mrs. O. S. Honeycut, and Mrs. Lillie Shannon, Temple, Texas, and Mrs. Birdie Tierney, Beaumont.

Dr. Howard Jarvis Reger of Vernon, Texas, died July 26, 1944, of arteriosclerosis.

Dr. Reger was born April 11, 1870, at Caldwell, Texas, the son of G. J. and Xanthier Reger. His academic education was received in private schools of Caldwell and schools of Fort Worth, after his removal to this city. His medical education was obtained in the old Fort Worth Medical College, from which he was graduated in 1902. After his graduation he served an internship in St. Joseph's Infirmary, Fort Worth, following which he was associated in the practice of medicine in Fort Worth with the late Dr. Bacon Saunders for several years. In 1910, he removed to Dalhart where he remained only a short period of time. In 1911, he located at Vernon, where he was in active practice until November, 1943, when he was compelled to retire because of ill health.

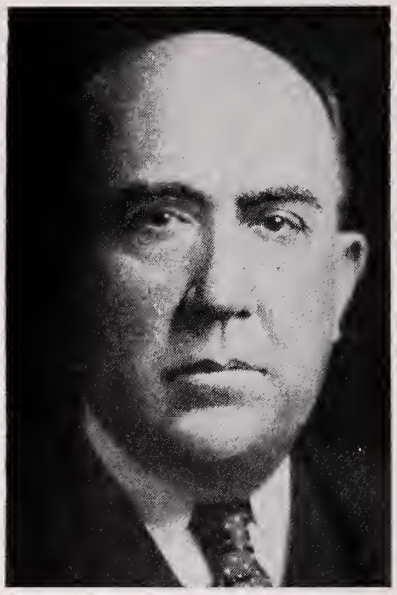
Dr. Reger was a member throughout his professional life of the State Medical Association and

American Medical Association through the Tarrant County Medical Society while living in Fort Worth, the Dallam-Hartley Counties Medical Society while residing at Dalhart, and the Wilbarger County Medical Society while practicing in Vernon. He had served the latter Society several terms as president and secretary. He was local surgeon for the Fort Worth and Denver City Railroad Company from 1905 until his death. He served Wilbarger County as health officer from 1930 to 1933, inclusive, and was city health officer of Vernon at the time of his death. He was president of the staff of Christ the King Hospital, Vernon. Dr. Reger found time from a busy practice to take an active part in the civic, church and fraternal life of his community. He was a member of the Vernon Chamber of Commerce, an active member of the Presbyterian Church, a Knights Templar, and a member of the Shrine. He was also a member of the Woodmen of the World. During World War I, he served two years as a captain in the aviation corps of the Army and, after his return to civilian life, received a commission of major in the medical reserve corps. He was genuinely beloved by the people he had long and faithfully served as a capable physician and surgeon.

Dr. Reger was married October 23, 1906, to Miss Lena Mae Smithey of Fort Worth. He is also survived by a son, James Reger, Austin; two sisters, Mrs. W. T. Macy, Fort Worth, and Mrs. Ernest Durham, El Paso, and one granddaughter.

Dr. Joe E. Daniel of Houston, Texas, died July 22, 1944, at his home, of cerebral hemorrhage.

Dr. Daniel was born May 31, 1878, in Annona, Red River County, Texas, the son of W. C. and Frances Daniel. His medical education was received in the Memphis Hospital College, now the University of Tennessee, from which he was graduated in 1901. He began the practice of medicine at Annona, Texas, where he remained five years. He then lived and practiced at Olney five years, and at Wichita Falls twelve years, before his location in Houston, which was his home for the remainder of his professional life.



DR. JOE E. DANIEL

Dr. Daniel was a member of the State Medical Association and American Medical Association throughout his professional life through the county medical societies of his places of residence. He was elected an honorary member of the State Medical Association in 1944. He served Wichita County Medical Society as president for three years. While residing in Wichita Falls he served on the staff of the Wichita General Hospital. In 1911, he became medical director of the Wichita Southern Life Insurance Company, which later consolidated with the Great Southern Life Insurance Company of Houston in 1922. He was medical director of the latter company at Houston from 1922 until he resigned because of ill health. He was a member of the Phi Beta Pi fraternity. In 1935, he served as chairman of the medical section of the American Life Convention of Medical Directors of Life Insurance Companies at the twenty-fifth anniversary of that organization in Excelsior Springs, Missouri. He was a member of the Methodist Episcopal Church. Dr. Daniel was held in the highest regard by all who knew him.

Dr. Robert Elmore Wright of Dallas, died July 11, 1944, at his home, of cardiorenal disease.

Dr. Wright was born June 10, 1887, in Winnsboro, Wood County, Texas, the son of the late Elmore and Mary Wright. His academic education was received in the public schools and University of Texas. His medical education was obtained in the Atlanta College of Physicians and Surgeons, Atlanta, Georgia, from which he was graduated in in 1913. After his graduation, he served a two-year internship in the Grady Hospital, Atlanta. He then returned to Winnsboro, where he was in general practice until 1920. He then took postgraduate work in eye, ear, nose and throat in New York and served an internship in the Lutheran Hospital, Brooklyn. In 1922 he began the practice of the specialty of ophthalmology and otolaryngology in Dallas, where he was in practice until his retirement because of ill health in 1939.

DR. R. E. WRIGHT

Dr. Wright was a member of the State Medical Association and American Medical Association continuously in good standing from 1922 until his death, through the Wood County Medical Society while living in Winnsboro and the Dallas County Medical Society after his removal to that city. At the time of his retirement he was a member of the American Academy of Ophthalmology and Otolaryngology, the Dallas Academy of Ophthalmology and Otolaryngology, the Texas Ophthalmological and Otolaryngological Society, the Dallas Southern Clinical Society, and the Southern Medical Association. He was also president of the staff of the Medical Arts Hospital, and a diplomate of the American Board of Ophthalmology and Otolaryngology. He was a thirty-second degree Mason and a member of the Shrine. He was also a member of the Dallas Knights of the Round Table, and Round Table International. Dr. Wright was highly regarded by all who knew him.

He is survived by his wife, the former Miss Lilla Richburg, to whom he was married September 6, 1919, in Denver, Colorado. He is also survived by a daughter, Miss Mary Wright; one brother, T. A. Wright, Winnsboro, and two half-brothers, J. F. Vickers, Palestine, and O. B. Vickers, Winnsboro.

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The 1945 Annual Session of the State Medical Association of Texas will be held May 7, 8, 9 and 10, in Galveston, with headquarters at the Hotel Galvez. This decision was made at a meeting of the Executive Council of the Association in Fort Worth, October 8, the only limitation in connection with the matter being that if war conditions at the time stated make it impossible or undesirable to hold the meeting, other arrangements will be made. It will be recalled that the House of Delegates accepted the invitation of the Galveston County Medical Society to meet in Galveston in 1945, but referred the matter to the Executive Council for final decision, taking into account the difficulties that might be experienced because of the war. Decision finally having been made, it is of great importance that those who expect to attend the meeting make hotel reservations at an early date.

As stated, the Hotel Galvez will be headquarters for the Association and the Buccaneer Hotel, just two blocks away, will be headquarters for the Woman's Auxiliary. These two hotels offer almost identically the same facilities that they did when the Association last met in Galveston in 1938. Six of the scientific sections of the Association will hold meetings at the Galvez and two at the Buccaneer. The General Meetings, Clinical Luncheons and House of Delegates will be located at the Galvez, as will the Memorial Services. Long experience has proven the desirability of concentrating as many activities as possible under one roof for the convenience of those attending and for the smooth functioning of those responsible for the myriad administrative details in connection with the meeting.

There will be technical exhibits, but decision as to whether or not it is feasible to present scientific exhibits is yet to be made. The chairman of the Committee on Scientific Exhibits, Dr. X. R. Hyde of Fort Worth, was requested by the Council on Scientific Work to poll prospective exhibitors. The response to the poll will dictate the decision. The consensus of opinion of the Council on Scientific Work was that scientific exhibits should be presented, but serious doubts were held that doctors could find the time necessary, because of the war, to prepare exhibits. A worth-while scientific exhibit requires extended study, planning, and time-consuming preparation. Dr. Hyde, whose address is the Medical Arts Building, Fort Worth, will appreciate opinions in the matter from those who may expect to participate.

Almost immediately following the decision of the Executive Council to hold the pre-war type of Annual Session, with General Meetings, Clinical Luncheons, Sectional Meetings, and so forth, in 1945, the Council on Scientific Work met and began immediate preparations for an outstanding scientific program. The success of the annual session from a scientific standpoint depends more on the energy and ability of the section officers than any other group in the Association. They are confronted with unusual difficulties occasioned by the war, in the compilation of their programs, but the experience of last year proved that attractive sectional

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programs can be arranged regardless of these difficulties. The Section Officers will need, however, the whole-hearted support of members of the Association, and any member who feels that he has a worth-while paper to present, should immediately offer it to officers of the appropriate Section..

For the convenience of prospective contributors, there is published herewith the names and addresses of the Section Officers, who will be glad to receive offers of papers for the 1945 Annual Session program. There is no time to lose, as the section programs must be completed and closed by January 15, the time of the midwinter meeting of the Council on Scientific Work.

The names and addresses of the Section Officers follow:

Section on Medicine

Dr. W. H. Potts, Jr., Chairman, Box 28, Dallas.
Dr. Gladys Fashena, Secretary, Children's Hospital, Dallas.

Section on Surgery

Dr. R. Wilson Crosthwait, Chairman, 1724 Austin St., Waco.
Dr. H. Walton Cochran, Secretary, Medical Arts Building, Dallas.

Section on Obstetrics and Gynecology

Dr. Robert A. Johnston, Chairman, 4115 Fannin, Houston.
Dr. John D. Weaver, Secretary, 4409 Ave. S., Galveston.

Section on Eye, Ear, Nose and Throat

Dr. Sam N. Key, Chairman, Norwood Building, Austin.
Dr. C. S. Sykes, Secretary, 2201 Ave. D., Galveston.

Section on Radiology and Physiotherapy

Dr. Tom B. Bond, Chairman, Medical Arts Building, Fort Worth.
Dr. Asa E. Seeds, Secretary, 4332 Stanhope, Dallas.

Section on Public Health

Dr. Victor E. Schulze, Chairman, San Angelo.
Dr. T. E. Dodd, Secretary, % State Dept. of Health, 412 E. 5th St., Austin.

Section on Clinical Pathology

Dr. John F. Pilcher, Chairman, Medical Professional Bldg., Corpus Christi.
Dr. Wm. N. Powell, Secretary, Scott & White Clinic, Temple.

Section on Pediatrics

Dr. C. B. Alexander, Chairman, 523 Medical Arts Bldg., San Antonio.
Dr. Francis A. Barbade, 804 American National Insurance Bldg., Galveston.

Our Legislative Program for 1945 has been definitely determined by our Legislative Committee and our Executive Council, in so far as a program can be set up in advance of the meeting of the Legislature. We have been a bit forehanded about it because of our failures last time, which failures were to a degree incident to our lack of early determination. This is not to say that our Legislative Committee was derelict in the matter. The reverse is true. It just so happened that decision could not be reached any sooner than it was reached, which was too late, and perhaps too little, but at any rate too late.

The President of the Association and the Chairman of our Legislative Committee have been exceedingly anxious that we get our legislative house in order early in the game this time, however much or however little it encompasses, and it seems that we are ready to start something. We hope our readers are willing, if not ready, and it is the promise of those in charge of such matters to see that they are made ready. The Legislative Committee will be advising the members of the State Medical Association what is to be done, and perhaps even the way it should be done, and our Committee on Public Relations will shell the woods with informative and stimulative material. Our program is conservative, and protective of the public welfare, and with an interested and activated medical profession it should go over big with the Legislature.

Our Legislative Committee was directed by the last House of Delegates not to introduce any highly controversial measures in the next Legislature, and while there will be differences of opinion and controversy in one or two of the measures, none of them may be said to be "highly" controversial, and it is believed that the motive of the opposition will in most instances be clearly apparent to the members of the Legislature. Certainly the State Medical Association has no ax to grind for any of its members personally.

About the only controversial subject likely to come up this time, so far as can be foreseen, will be chiropractic legislation, and we will certainly not introduce that, or procure its introduction. We are instructed to resist any such legislation which may be attempted, with all that we have. In the beginning of any such fight, our forces will necessarily be on the defensive. It is hoped and expected however, that we will not remain on the defensive for very long. The fact that the chiropractic enabling act passed in the last session of the Legislature has been declared unconstitutional, null and void, and a mistake, and a lot of other things, will make the fight rather difficult this time. It probably won't make a lot of difference to the chiropractors what sort of law they get, just so they get a law. They have not heretofore abided by the Medical Practice Act, and probably won't abide by that law hereafter. Indeed, their law would doubtless still be regarded as constitutional had they not tried to enforce it. The thing was a monstrosity to begin with, and it will be a monstrosity to wind up with, although perhaps smaller and less conspicuous. Most people think that it doesn't make any difference whether or not anything is good, just so

it is not bad. The fallacy of such a position in the practice of medicine is apparent when we consider the baneful effects of neglect and delay.

Our Sanitary Code has been out-of-date for many years. In Texas only the Legislature may legislate, and the preparation by the State Board of Health of a set of rules regulating practices which have to do with sanitation and the public health, is held to be legislative. Hence, and unfortunately, the Legislature must enact such rules into law, and every time there is an advance in the art and science of medicine pertaining to the problem of sanitation, the law must immediately be amended, or become to that extent obsolete. On numerous occasions, the State Medical Association and the State Board of Health have requested that the laws which go to make up the Sanitary Code be brought up to date, and bills to that end have been introduced and strongly advocated, but so far nothing of importance has happened. Something should be done about it without further delay, and bills for the purpose have been drawn up and are ready for introduction.

Among the important public health problems throughout the country is that of syphilis. That is not now news even to the layman. Ambitious programs are under way throughout the country calculated to bring the public to a proper appreciation of this particular and serious jeopardy to the public health. Among the procedures believed to be effective in curtailing the incidence of syphilis, is that of requiring laboratory and clinical evidence of freedom from syphilis in its transmissible stage, of all who are about to enter the bonds of matrimony, and of pregnant women. Under suitable safeguards, there would seem to be no reason why such procedures should not be required by law, and meticulously followed through. Measures to that end have been approved by the State Board of Health and the Legislative Committee of the State Medical Association, and will be introduced early in the session of the Legislature.

The budget for the State Health Department has been a perennial cause of worry to all who have been interested in the public health on a state-wide basis. It is difficult to make the average layman, or physician, as for that, understand the need of so much money as is called for each two years. It seems large in the aggregate, and without knowing the service rendered as a result of the appropriations concerned, it is difficult to appreciate the need of relatively such large sums of money. Except for contributions made by the federal government, the work of our State Health Department would, indeed, amount to very little, comparatively speaking. In our estimation, it would be better were the State to assume the total cost of its Health Department and have complete charge of its activities, policies, and the like, but that probably won't be the case. Indeed, it is usually difficult to secure the minimum required by the State Health Department, and requested by the State Board of Health. The best money spent by the State of Texas is the purchase of health for its people. It pays off.

The following brief itemization of the break-down of this legislative program is submitted for what it is worth at the moment. The bills themselves or more detailed discussions of each will follow in other numbers of the JOURNAL, and our Committee on Public Relations will have a lot to say about it in the very near future. Perhaps the most immediate requirement is that this discussion be brought to the attention of members of our Legislature, both actual and prospective.

Chiropractic.—It will be recalled that the chiropractic practice act was passed by the last Legislature by a very narrow margin in each House. Indeed, the vote in the Senate was a tie, with Lieutenant Governor John Lee Smith deciding the issue. The bill was an astonishing conglomeration of compromise provisions. The idea seemed to be to try to mollify the friends of chiropractic legislation without hurting the public. In the nature of the case, that could not be done, and the effort to attain that end resulted in the mess that finally became a law without the signature of Governor Coke Stevenson. The bill was generally believed to be unconstitutional from the beginning, and the confusion and uncertainty of its provisions, as set up during its passage through the Legislature, but added fuel to the flame which finally consumed it. The bill was eventually declared unconstitutional, null and void, in a classical decision by the State Court of Criminal Appeals. This opinion has such direct bearing on any future effort to secure chiropractic legislation, that we feel that we should call attention to certain parts thereof. We regret that we don't have the room for a complete discussion of the problem involved, and its solution by this very fine Court.

A chiropractor was arrested for violating three provisions of the chiropractic law. He was practicing without a license; advertising without addition of the word "chiropractor" to his name, and advising the parents of a child against having the child vaccinated.

There was an appeal on a habeas corpus basis. The contention was that the chiropractic statute violated Article 16, Section 31 of the State Constitution, prohibiting the Legislature from giving preference to any school of medicine, and that the chiropractic statute is void because vague, indefinite and uncertain. The Court of Criminal Appeals sustained both contentions. For the purpose of this discussion, we are not concerned with the vagueness, indefiniteness and uncertainty of the law, because those deficiencies can be corrected, but we are definitely concerned with the other contention, namely, that the State Constitution prohibits the extension of any preference to any school of medicine in setting up any medical practice act. Certainly greater exaction in the matter of the extent of the education required of one so-called school of medicine over another, is a discrimination, and the Court so held in this case. The Court said at one point in its discussion that:

"Thus the Legislature has carved out of the field of the healing art a single system for treat-

ing disease and disorders and has given it special treatment, limiting the use thereof to those only who qualify under the terms of this Act. That such legislation violates the nonpreference clause of Article 16, Section 31 of our State Constitution definitely appears."

In answer to the contention on the part of the attorneys for the chiropractors that other states have practically the same law, and that the constitutionality of such laws have been uniformly upheld, the Court observed that:

"In this State, however, the authority of the Legislature to enact legislation touching the practice of medicine, or the healing art, has been expressly limited by the Constitution, in Art. 16, Sec. 31 thereof, heretofore mentioned. No similar constitutional provisions, in any of the States, where the validity of legislation authorizing the practice of chiropractic has been sustained have been called to our attention. Hence, the fact that other States of the Union have authorized the practice of chiropractic as an independent field of endeavor, and as being outside the field of the practice of medicine is of little consequence here. This Act must be construed in the light of our own Constitution."

With equal clarity the Court held that the practice of chiropractic is the practice of medicine. It seems clear that any successful effort on the part of any group to secure special privileges in the field of the healing art, no matter what they are, will certainly result in an act which will be unconstitutional, null and void. We hope our Legislature can see that this time. We did not fail to call the matter to the attention of the previous Legislature.

As stated, the Sanitary Code, which is what we are accustomed to call the various health laws of the State pertaining directly and indirectly to sanitation — in short, strictly health laws, has been broken down to three measures, namely, strictly sanitation; the standard health units, and communicable diseases.

Sanitation.—This measure simply concerns itself with the regulation strictly of sanitation of public health concern. The provisions of the measure are not notably different from those of existing laws, or agreements between the Health Department and those directly concerned, but the combination is important, both to the health of the public and the commercial interests of the public. Matters of cleanliness, pollution and health hazards of a variety, such as may exist in any commercial or manufacturing institution or public or private premises, are carefully and specifically regulated, so that responsible parties may know definitely what they can do, should do and must do under any given circumstance. Of particular import is the set-up regulating public water supply, sewage, cesspools, and the like, not to mention pleasure resorts, tourist camps, swimming pools, and so on through a large variety of such installations. The sanitary control of fish and oyster plants is important. That can easily be understood by anyone who knows the health hazards involved. Slaughtering, packing and shipping meat and other foods require careful control from the health angle, and this measure gives it, along with control of the conditions resulting in typhus fever and other such diseases. Manifestly, if these conditions are removed, the diseases themselves will be likewise removed.

Considering the extent of these regulations and their ramification into the business and personal affairs of our people, it can be understood how opposition to enactment of the bills will inevitably be forthcoming. However, the Health Department has brought its requirements as nearly as possible into accord with practicability. In other words, the commercial concerns involved agree that sanitation is necessary, and are willing to accept reasonable regulations of the sort. They don't want to be required to go to such lengths in control as to make their respective enterprises financially prohibitive. Their attitude can well be understood, as can that of the State Board of Health and the State Health Department. This measure should become a law as is, or in reasonable facsimile.

Standard Health Units, and county, city and school health departments, have been legalized in one of the sanitary code measures. Standard health units already exist in a good many counties in the State, and, of course, health departments of cities and schools have long been established in many more. Originally, there was a county physician only for the county, under the presumption that the county physician would do for the dependents of the county everything that a physician would do for his private patients, which in that day and time included prophylactic medicine and all of the sanitation and the like which might be required in each individual case. Since that time, public health has become a specialty, rather closely in line with other specialties in medicine. For that reason, the offices of County and City Health Officers were created by law. The local health officer now endeavors to perform a dual service: first, he takes care of the indigent sick and, secondly, he endeavors to enforce the public health laws within his jurisdiction. In recent years the progress and demand of public health service have become great and burdensome to the city and county health officer who does not devote his entire time to the problem; therefore, it has become desirable and necessary in certain localities that a full-time physician be authorized to assume the responsibility of the entire preventive public health program. For some years, through the coöperation of state and federal governments, so-called standard health units have been set up in many of our counties, each operating under a director with the necessary staff personnel to accomplish the purposes of the unit. Enactment of the proposed legislation would relieve or lighten the burden of the local health officer, insofar as enforcement of public health laws is concerned. However, the local health officer, who, under this proposed legislation becomes local *physician* of the city or county, as the case may be, would not be relieved of the indigent practice of the community.

The only real problem existing in this measure is the method of appointment of the directors of health units, who thus become county health officers. On the one hand, it seems highly desirable that such appointments be made on a non-political basis, and solely upon the basis of professional fitness, while on the other hand, it is highly desirable that the advantages of local self-government be perpetuated; certainly that they not be seriously interrupted. The measure under discussion attempts to overcome this dilemma by providing that commissioners' courts by majority vote, appoint the directors of health units within their respective jurisdictions, upon nomination of suitable parties by the State Board of Health, or, to be more exact about it, the State Health Officer. It is required that the State Health Officer submit the names of three physicians who are qualified under the State merit law to fill such positions, from which the local governing bodies may make selection. It is provided that should selection not be possible from such limited nominations, additional nominations be made until there is appointment. Failure of any director to meet the approval of these local governing bodies will be occasion for removal, upon the principles involved in the original appointment.

In general, the provisions of this bill follow the

agreements and contracts concerned at the present time in the operation of health units. The city and school health departments are already regulated by law, and such laws are recognized by this measure. There will be no conflict there.

It is important that it be clearly understood that enactment of this bill does not make it mandatory upon any county to establish a health unit. It is permissive legislation only and the establishment of a unit will remain voluntary with the county as at present.

Communicable Diseases are dealt with in one of the sanitary code measures, and so far as our Legislative Committee has been able to determine, there has been little change in the control thus provided. Of course, the advances made in this particular field during the past several years, have been used to modify the old set-up, but nobody will quarrel about that. This measure has been so modified as to place the responsibility of enforcing the laws relating to communicable disease control upon the unit director. The local health officer, who, under this legislation becomes local physician, is thus relieved of this embarrassing function. That is, of course, a technical detail of no great concern to anybody. The matter of control of food-handlers and the related matter of health units, are regulated in this bill about as they are regulated at the present time, with some improvement in the set-up here and there, none of which it is believed will be at all controversial.

The serological blood tests to be used in the campaign against syphilis, are set up in two separate measures, as follows:

A Premarital Serological Blood Test is required in this measure, in the case of both men and women, which is a point about which there has been much difference of opinion in the past. It has long been the thought that the relationship of marriage is so personal that it is nobody's business, sometimes not even that of the doctor. There has been a tolerance of the idea of demonstrating freedom from syphilis in the man, but the female is still protected by the old sentiment.

The measure under discussion goes at the matter rather conservatively. It simply requires that persons making application for license to marry shall within twenty days prior to such application, be examined by a duly licensed physician; that approved standard microscopic and serological tests be made, and a certificate of freedom from syphilis in its conveyable stage be secured. There are technical provisions for the laboratory findings, in the protection of the individuals concerned from undue publicity. The county clerk cannot issue a marriage license except the law has been complied with.

A Prenatal Serological Blood Test is required in a companion measure, and under much the same procedure. There are the same precautions as to publicity, and clearness as to procedure. The physician engaged to attend in delivery or childbirth shall, as soon as there is reasonable grounds for suspecting pregnancy, procure the serological test for syphilis. If the woman concerned is in labor at the time such diagnosis is made, it is not a matter of concern from a preventive angle as to whether or not she has syphilis. Hence delivery will proceed apace, and the specimen for the serological test secured within the next ten days. The big idea is, of course, to get treatment under way in due time.

The effort to secure sufficient money to properly administer an adequately organized and managed department of public health, has always been considerable, because of the fact that the importance of the service, and its ramifications into every walk of life, has not been properly understood and appreciated.

Budget—Our State Health Department has 455 employees, with total salaries of $1,110,525.00, which is a lot of money, but not so much as it seems when the salaries are broken down into individual cases. Supplies, equipment, maintenance and miscellaneous items, cost $452,537.00, making a total of $1,563,062.00. The State of Texas must pay part of this, and the federal government, whether or not it must do so, pays a part. There is room for a lot of discussion in this particular, but we refrain from entering that particular field of discussion at this time. Neither can we enter into a discussion justifying the expenditures involved in the budget. There are thirteen divisions which must be supported, as follows: Central Administration; Bureau of Food and Drugs; Bureau of Laboratories; Bureau of Sanitary Engineering; Bureau of Vital Statistics; Division of Rural Health Service; Bureau of Venereal Disease Control; Maternal and Child Health Division; Public Health Nursing; Public Health Education Division; Tuberculosis Division; Dental Division, and Bedding Division. The cost of operating these divisions ranges from $18,460.00 for the division of tuberculosis, to $191,010.00 for the division of public health nursing. The employees of these several divisions range from a minimum of seven in the tuberculosis division, to a maximum of eighty-six in the division of public health nursing. Whether any of these employees could be dispensed with, or the cost of administration of the health department as a whole could be lowered, we, of course, do not know, but we do know that Texas is down to nearly the bottom of the list in percentage of expenditure per capita in support of our respective health departments, and it would seem that the amount spent for this purpose in Texas is so low as to nearly create a public health hazard. The Legislative Committee of the State Medical Association is now studying the many items which go to make up the cost of operating the State Health Department, and expect to be in a position to advise with the Legislature concerning the matter, if and when given an opportunity to do so.

Tumor Seminar.—There is published elsewhere in this number of the JOURNAL (pages 366-391) proceedings of a tumor seminar conducted by Dr. Arthur Purdy Stout, Associate Professor of Surgery, Columbia University, College of Physicians and Surgeons, New York City, in the meeting of the Section on Clinical Pathology of the State Medical Association, at San Antonio, May 3 and 4. Apart from a paper by Dr. Stout on "Tumors of the Blood Vessels," which also appears in this number, and a paper by another guest speaker, Major M. Pollard, V. C., Eighth Service Command, Fort Sam Houston, entitled, "Applications of the Chick Embryo to Virus and Rickettsial Disease Problems, with Demonstrations of the Work on Chick Embryos," the seminar consumed the entire two-day session of the Section.

Twenty-seven neoplasms were studied by forty members and guests attending the Section, from material furnished by San Antonio physicians and pathologists of Army base hospitals stationed in and near San Antonio. Case histories and microscopic descriptions of each tumor section were available to each

pathologist or surgeon present. After the diagnoses were made and handed to Dr. Stout, he reviewed them and then gave his own diagnoses and reasons therefor. The seminar was outstanding in teaching value. As author of one of the most popular books on tumors, "Human Cancer," and a prolific and authoritative writer, Dr. Stout's reputation in oncology is international.

It is unfortunate that some of the material in Major Pollard's interesting paper with regard to a new method of typhus vaccine production was restricted by the War Department, so that it could not be published in this issue. Otherwise, the Original Articles section of this number of the JOURNAL would have presented the proceedings of the entire program of the Section on Clinical Pathology in 1944. We are pleased to advise, however, that Major Pollard's paper was recently released, and it will appear in an early number.

We commend the proceedings of the tumor seminar appearing in this number to the careful study they deserve, and congratulate those responsible for this excellent teaching program.

Dues for 1945 will be as follows: Active membership, $20.00; Intern membership, $4.00; Honorary membership, $4.00; Military membership, $1.00.

The House of Delegates at Dallas last May, amended the By-Laws of the State Medical Association, by substituting $20.00 for $9.00, in that part of the by-laws concerned pertaining to active, or regular membership. No change was made in the dues for intern memberships and honorary memberships. A by-law requiring the payment of $1.00 to cover Medical Defense, for military membership, was adopted.

As is well known, and as commented upon heretofore in these columns, the increase in dues was made for the purpose of supporting the publicity campaign recommended by our Committee on Public Relations, and approved by the House of Delegates last May. Of course, the amendment raising the dues could not become effective until 1945, but the activities of our Committee on Public Relations have been carried on by money donated by members of the Association, and appropriations made by the Board of Trustees from funds not otherwise pledged by the budget.

The State Medical Association on the first day of October had a total membership of 4,646. Of these, 3,424 paid the regular dues of $9.00; seventy-four paid the intern and honorary membership dues of $4.00, and 1,148 (Military Members and Members Emeritus) paid no dues at all. Based on the present membership figures, the State Medical Association has received less than $7.00 per member, on the average. It costs more than that to carry on the routine affairs of the Association. Next year, still basing our calculations on the present membership, the average receipt per member will be around $14.00. It is not likely that our membership will increase. Rather, it will be decreased, just how much no one can say. Therefore, and it is the point we desire to make in this discussion, if we are to carry on in accordance with present plans, an extra effort will need to be made to collect dues. There will be those who will object to paying annual dues of $20.00, when they have heretofore paid only $9.00. On the other hand, we have been receiving encouraging assurances that the "raise" will be "seen" by many who might be expected to demur. Indeed, there are those who would see the raise and tilt it somewhat.

We are not in a position to discuss the problem any further than to say that it is highly important that every effort be made to collect dues this year, which means that it is highly important that we all pay. If experience discloses that we are collecting more money than we can profitably and economically spend, it will be a simple matter to reamend the By-Laws to provide accordingly. If it is decided to reduce the dues, we will at the most have spent a modest amount, each, in an effort to salvage a very serious situation. If the investment thus made is justified by results, no one will object to the continuation of the increase in dues. Quite a few of our members have voluntarily made donations greatly in excess of the dues assessed for the next year.

It is said that money is plentiful. We hope so. If money is reasonably plentiful, there will be no holding back. If results of the expenditure of the added funds are satisfactory, everybody will be satisfied. It is a matter of community interest, the medical profession of Texas, and, indeed, the entire population of Texas, constituting the community. It is in order for us to reason one with another concerning the affairs of medicine and public health, even from the angle of economics.

Current Editorial Comment is the title of a new department in the JOURNAL, which makes its debut in this number. We give credit here to the idea of initiating this department to "Current Comment" in *The Journal of the American Medical Association*, which regularly carries brief topical scientific discussions treated in editorial style, and to "Editorial Comment" in *California and Western Medicine*, which likewise presents discussions in editorial style on current subjects of especial interest. To avoid having exactly the same title for the department in

the JOURNAL as either of the publications named, decision was made to borrow a bit from each and so the title of "Current Editorial Comment" was decided upon. The title is of far lesser consequence anyway than the content, which we hope and believe will reflect the high standards of Texas medicine.

To initiate the venture the deans of our three Class A medical colleges were communicated with, and they were requested to ascertain from members of their respective teaching and clinical faculties if they might be depended upon from time to time to submit articles of approximately 500 words in length on topical subjects in medicine. A favorable response was received, and the University of Texas School of Medicine, through its energetic and distinguished dean, has taken the lead in submitting the first two articles. The first of these, by Dr. Chauncey D. Leake, on a timely medical problem that is deserving of attention by the medical profession, appears in this number, immediately following these pages. The second, also on a subject of great interest to medicine at the present time, entitled, "Physical Medicine on the Move," will appear in the December JOURNAL.

We have chosen to follow the example of *California and Western Medicine* in publishing the name of the contributor with the article, thus giving him the credit he deserves and also relieving the JOURNAL of responsibility for the views expressed. This procedure places these discussions, therefore, in the same category as those in the Original Articles section, the only distinction being the matter of length, and the manner of treatment of the subject; and, too, it is hoped that subjects will be chosen of especially topical value to the medical profession at large.

An invitation is hereby extended to all members of the Association to submit brief editorial discussions, especially on scientific subjects of general interest, of not more than 500 words in length. We hope that this new department of the JOURNAL will meet with approval and receive the support necessary for its continuance.

CURRENT EDITORIAL COMMENT

Barbital Drunks.—The prohibition of alcoholic beverages, and the current high prices of whiskies where prohibition is not in effect, are producing many and varied problems. Among these is one of peculiar concern to Texas physicians. It involves the substitution of barbiturates for alcohol on the part of individuals desiring to obtain alcoholic effects.

Physicians usually appreciate that chronic alcoholism is an effort at "escape" from some intolerable situation or unbearable factor in the individual's environment. The same psychiatric factors operate as in the case of chronic morphine addicts. Pharmacologists have long anticipated that it would only be a question of time when the barbitals or other central nervous system depressant drugs would be used to provide the same sort of "escape" as is well known to be afforded by alcoholic drinks or by opium derivatives.

Texas is one of the few States in the Union which does not require a doctor's prescription for the sale of barbiturates. It is highly desirable that an effort be made to bring the pharmacy laws in Texas into accord with those of other States. It would be particularly wise for the Texas Legislature to enact a food, drug and cosmetic statute which would be uniform with that of the United States Government and with many of the more progressive States in the Union. This would assist materially in controlling the injudicious or improper use of barbiturates and other poisonous drugs by the public.

The current problem in Texas is peculiarly aggravated in certain communities. A considerable number of essential war workers have become accustomed to using various barbiturates in beer, as a substitute for whiskey. Unscrupulous druggists cater to these individuals and often exploit them with cruel disregard for family and community welfare. These men who go on barbiturate drunks suffer central nervous system depression of the same type as that caused by alcohol, and are thus rendered incapable of performing many tasks requiring finely adjusted skills and perceptions. Their reaction times are slowed, and thus they become dangerous when driving an automobile or when engaged in activities in which a delayed reaction time may have serious consequences. Further, they frequently are incapacitated for days at a time, and thus many important man hours of essential war work are lost.

Physicians should be on the lookout for chronic barbiturate drunks. Every effort should be made to acquaint druggists with the seriousness of the situation and to enlist the coöperation of the pharmacy profession, if possible, in refusing to dispense central nervous system depressant drugs without a physician's prescription. The situation is serious enough to warrant careful study by the medical profession. It merits a recommendation to the State Legislature to enact a comprehensive food, drug and cosmetic act which would be uniform with the excellent statute now Federally operative.

CHAUNCEY D. LEAKE, PH. D.
University of Texas Medical Branch, Galveston.

TUMORS OF BLOOD VESSELS

ARTHUR PURDY STOUT, M. D.
NEW YORK, N. Y.

The recognition and classification of tumors depends upon a knowledge of the embryology and comparative histology of their component cells, their growth characteristics and metaplastic potentialities, their capacities of secretion, excretion and degeneration and their effect upon the tissues within which they grow. Of all these varying factors the one causing the greatest degree of confusion and error is metaplasia or the ability of cells to display activities and assume functions not ordinarily associated with them. The most familiar example of metaplasia is furnished by the assumption of a variety of other cells of the appearance and fiber-forming activities of the fibroblast.

The tumors composed of blood vessels are of considerable interest because, no matter whether they are benign or malignant, they are never composed of a single cell type but are always compounded of two or more tissue types forming a remarkable example of symbiosis. Every tumor of this group is composed basically of tubes lined by endothelia enclosed within a sheath of connective tissue fibers, usually an exceedingly delicate and tenuous meshwork of reticulin but sometimes composed of thicker collagen. In addition to these basic tissues, other cellular structures may also be present and form integral parts of some members of the family of vascular tumors. These are in particular smooth muscle, pericytes, fat, nerves, bone, mature and immature red and white blood cells and perhaps other mesenchymal derivatives. As in all tumors there is a fibrous framework which is extremely variable in amount.

The benign vascular tumors are very common indeed but the malignant ones are very rare. This has made their study and recognition difficult because it has been hard to assemble enough cases to learn of their appearance and peculiarities. It would appear, however, that basically they can be divided into two groups depending upon the dominant role played in the one instance by the endothelial cell and in the other by the pericyte.

One cannot comprehend the appearance and method of growth of angiomatous tumors without understanding their formation both in the embryo and their reformation in repair. In the embryo, blood vessels are formed from angioblastic endothelial cells developing in the vascular layer of the mesenchyme. These cells first form solid cords and islands, lumens then appear in them, red blood cells are formed and finally the isolated structures unite to form continuous tubes. If some of these structures fail to unite and remain segregated, they may grow independently and form hemangiomas which subsequently may either unite with normal blood vessels or remain separated from them. This method of formation, however, does not explain the subsequent growth of these hemangiomas nor the formation and growth of certain vascular neoplasms that are not congenital. This takes place by a process similar to the formation of capillaries in granulation tissue; that is, by the sprouting of cords of endothelial cells from preexisting capillaries with secondary canalization. This occurs in the growth of all vascular tumors both benign and malignant; in some, it is paramount, in others it simply forms a framework for the growth of the other accompanying cells.

TABLE 1.—*Tumors of Blood Vessels.*

Capillary Hemangioma
(a) Congenital
(b) Acquired: "Granuloma pyogenicum;" "hemangioblastoma."
(c) "Sclerosing hemagioma" (vascular xanthoma)
Cavernous Hemangioma
Venous Hemangioma
(a) Uncomplicated
(b) With metaplasia (fat, bone, smooth muscle (vascular leiomyoma), bone marrow).
(c) Venous racemose aneurysm
Cirsoid Arterial Aneurysm
Diffuse Hemangiomatosis
(a) simple
(b) with congenital arterio-venous aneurysm
Hereditary Hemorrhagic Telangiectasis (Rendu-Osler-Weber's disease)
Capillary Hemangiomatosis of the Retina and Cerebellum (Lindau-von Hippel's Disease)
Generalized Malformations of Vascular Mesenchyme
Hemangiopericytoma
(a) Glomus Tumor
(b) Non Specific form
Hemangio-endothelioma*
(a) Benign
(b) Malignant

*The neuropathologists sometimes use this term for the vascular form of meningioma.

The whole picture of vascular tumors has become overlaid with confusion because in certain regions of the body such as for example the skin and central nervous system, a series of names have been adopted by dermatologists and neuropathologists which in the skin are based upon clinical aspects (e.g. angiokeratoma, naevus flammeus) while in the central nervous system some terms are used with a different connotation than is customary in any other part of the body (e.g. angioma means a malformation of vessels which is not considered neoplastic while what are considered true neoplasms are called angioblastomas).*

From the Surgical Pathology Laboratory, College of Physicians and Surgeons, Columbia University, and the Department of Surgery, Presbyterian Hospital, New York, N. Y.

Read before the Section on Clinical Pathology, State Medical Association of Texas, San Antonio, May 3, 1944.

*AUTHOR'S NOTE.—This writer has not personally studied a sufficiently large number of central nervous system vascular tumors to be in a position to translate all of the terms coined by Cushing and Bailey, 1928, and their followers, into the more familiar names used by the major portion of the medical world. It is a correlation which should be undertaken.

In the following description the terminology will be based upon histological features and the names used will be the common ones based upon those histological features.

Capillary hemangioma.—This is by far the commonest histological variety of vascular tumor. Whether it develops from vascular tubes embryonally segregated or otherwise is of less importance than the facts that the tumors are often mutiple, that although they may form in any vascular tissues they are commonest in the skin and ectodermal mucous membranes, and that although they usually infiltrate tissues and may exhibit rather persistent growth they are truly benign in that they do not metastasize in spite of statements to the contrary. The writer recently investigated reported cases called benign metastasizing hemangioma (1943) and came to the conclusion that all had the unmistakable characteristics of malignant hemangio-endotheliomas. The capillary hemangioma is composed of a congeries of simple capillary tubes lined with endothelia surrounded by a sheath of delicate reticulin fibers. These vessels may be scattered diffusely through otherwise normal tissues in which case they are probably usually of congenital derivation even if they only start to grow long after birth, or they may be more closely associated with very little normal tissue between the vessels. The quantity of fibrous tissue which holds these tumors together is very variable. All of the vascular tubes are of relatively narrow calibre.

There are certain variants of this tumor which require special mention. The first is called by the dermatologists *granuloma pyogenicum.* This is a lesion which develops in the skin and is composed of capillaries which sprout circumferentially about stem vessels, thus having a tendency to form microscopic lobules. The growth of these vessels begins in the skin or subcutaneous tissue and proceeds toward the body surface producing a bulging mass covered with thin epidermis which is easily injured, resulting in frequent hemorrhages. These growths are spontaneous and have no association with infection so that the name of granuloma pyogenicum seems infelicitous. They resemble to some extent the fungating granulomas associated with infection but they behave like benign neoplasms. Usually they are small but occasionally reach a diameter of 5 or 6 centimeters.

Another variant is also found in the skin and subcutaneous tissue and is a much less definite lesion. It is called by the Boston School of Pathology, following Gross and Wolbach (1943), *"sclerosing hemangioma."* It is a hard fibrous growth with a good many capillary blood vessels scattered through it together with many phagocytes which usually contain lipoid and sometimes hemosiderin as well. Occasionally giant cell phagocytes are present. The question as to whether or not these tumors are basically angiomatous cannot be considered as definitely proved. They have a rather characteristic arrangement of the fibrous tissue which is also found in fibrous skin growths with very few capillaries and either without any lipoid-containing foam cells or with such a large number that they dominate the picture. In common with many others we in New York have been inclined to focus attention on the lipoid and call these growths fibrous or vascular xanthomas. N. C. Foot has even raised the question of a neurogenous origin for some of them. Wolbach insists that the capillaries are paramount and all the other features merely secondary. Whatever the truth may be, all are agreed that these are benign tumors.

Cavernous hemangioma.—This tumor is exactly like the capillary hemangioma except that perhaps the majority of the vessels forming it are widely dilated. It grows sometimes to an enormous size especially in the liver but like the capillary hemangioma it is found most frequently in the skin and subcutaneous tissues.

Venous hemangioma.—In this tumor a majority of the neoplastic blood vessels have thick walls, usually with some admixture of smooth muscle in them so that they resemble venules. These tumors sometimes have an excess amount of smooth muscle formed in the stroma between the vessels and often independent of them. Such growths are almost certainly the result of metaplastic development from segregated vascular mesenchyme. If the smooth muscle elements predominate, then it may be impossible to differentiate the growth from the vascular type of cutaneous and subcutaneous or submucous leiomyoma (Stout, 1937).

Any of these tumors may have more or less fat associated with them and, if it is great in amount, the tumor may masquerade as a lipoma. Bone and bone marrow may also be formed but this is much less common. We have seen such tumors especially in striated muscles or associated with their sheaths.

There are some complex vascular malformations which do not fit into any of the above categories since they are compounded of several different elements or for other reasons. There is, for instance, the *diffuse angiomatosis* which may affect an entire extremity, causing overgrowth of tissues and sometimes associated with congenital arteri-

ovenous aneurysm. The overgrowth of vessels may be of all types. Such cases have been described by Pemberton and Saint (1928), Matas (1940) and Watson and McCarthy (1940). One example of this in the lower extremity has been observed at the Presbyterian Hospital associated with congenital arteriovenous aneurysm. *Cirsoid arterial dilatations* and *venous racemose proliferations* are both tumor-like enlargements of arteries and veins respectively. There are two congenital vascular proliferations of a capillary type which have received names because they affect certain tissues specifically and give rise to a definite train of symptoms. These are *Rendu-Osler-Weber's disease* or hereditary hemorrhagic telangiectasia in which punctate capillary hemangiomas affect especially the nasal and oral mucosae giving rise to frequent hemorrhages; and *Lindau-von Hippel's disease* or capillary hemangiomatosis of the retina and the cerebellum in which latter situation it causes the formation of cysts. Other multiple generalized complex vascular lesions are described by Gloggengiesser (1939), Rabson (1938), and Sal (1931).

So far no malignant tumors have been described. The next two groups of vascular tumors to be presented are perhaps the most interesting of all of these neoplasms, albeit they are uncommon, because they include both benign and malignant forms. These are the hemangiopericytomas and the hemangioendotheliomas.

Hemangiopericytoma is a relatively unknown term which was devised by the writer and his associate Dr. M. R. Murray (1942) because the cell which characterizes the tumors is the highly specialized contractile cell which clings closely to the outer surface of capillaries and has been given the name of pericyte by the Swiss histologist Zimmermann. The most famous member of this family of tumors is Masson's neuromyo-arterial *glomus tumor* (Stout 1935, Murray and Stout, 1942), or glomangioma, as Orville Bailey prefers to call it. By the method of tissue culture Murray demonstrated that the mysterious "epithelioid" cell of the glomus tumor corresponds morphologically and physiologically with the pericyte. The glomus tumors with their rich complement of nerves and vessels surrounded by layers of pericytes and occasionally smooth muscle are so highly organized that they are really caricatures of normal glomuses. The attacks of paroxysmal pain which characterizes them clinically are no less spectacular than their histological composition.

Information about the other members of this group is so far extremely limited because its public recognition dates only from July, 1942, and is confined to cases described by the writer and his associates. The histological characteristics of the group are the presence of rounded or sometimes slightly elongated cells in close approximation to the delicate fibrous sheaths of capillaries. The ordinary hemangiopericytoma does not have the almost organoid appearance of the glomus tumor. Its vessels are arranged at haphazard and the amount of associated fibrous tissue varies greatly and is almost always much denser and less well furnished with neurites than is the glomus tumor but there are always many vessels and each is furnished with cells closely applied outside of its fibrous sheath. These vessels, except for the pericytes heaped about them, are simple capillaries lined by normal endothelial cells which are always separated from the pericytes by a fibrous sheath. This differentiates the tumor from the hemangio-endothelioma in which the endothelia play the dominant role and are heaped up inside of the fibrous sheath. One sometimes needs to resort to a silver connective tissue stain in order to make certain whether the cells are pericytes and outside of the sheath or endothelia inside of it. It is probable that the hemangiopericytoma formerly was classified with the hemangio-endotheliomas or called by some vague term like perithelioma. Most of these tumors are benign. They grow for a time in a restrained fashion and then may remain inactive for as long as sixty years (Stout and Cassel, 1943). But there are two cases recorded which showed progressive infiltrative growth leading to the loss of a finger and a foot, a third unpublished retroperitoneal case which has resulted in death by local infiltration, and finally one fatal instance of metastasis to the liver and lungs (Stout, 1942).

The more common and better known special vascular tumor features the endothelial cell and is called *hemangio-endothelioma.* This rare neoplasm is in most instances malignant but benign examples are known. Most of these benign forms appear early in life or are congenital. They are quite orderly in arrangement and look like capillary hemangiomas in which the endothelia are large and form more than one layer around the lumen. The malignant forms are characterized by the unrestrained proliferation of atypical endothelia and by a very free anastomosis of the tumor vessels. The endothelia may remain only one layer thick or they may multiply to such an extent that the whole field is obscured by them and one has to resort to silver staining to reveal the obscured vascular sheaths or to tissue culture to demonstrate the endothelial habit of the active tumor cells. It has seemed to the

writer better to group all the malignant vascular tumors except the hemangiopericytoma under this one term rather than any of the others which have been used. Except for the benign form, these are extremely malignant neoplasms which metastasize readily through the blood stream and are rarely removed before this occurs (Stout, 1943, Murray and Stout, 1944).

No discussion of vascular tumors would be complete without mention of the mysterious malady known as Kaposi's disease. In brief this is characterized by the successive appearance of vascular lesions most commonly in the skin but in many instances also in the mucosae, lymph nodes, viscera and elsewhere. Usually it attacks older people and after a protracted course may result in death. The individual lesions are made up of capillaries and a fibrosarcoma-like tissue in greatly varying proportions and often the capillaries show a very marked tendency to anastomose. The etiology and nature of this disease is entirely unknown and, although some consider it a form of neoplasm, it seems better to exclude it from the group of vascular neoplasms until further investigation reveals its real nature.

A discussion of blood vessel tumors to be complete must also make mention of tumors composed of one element of a blood vessel wall such as smooth muscle, connective tissue or Schwannian sheath. It is rare that one has the opportunity to observe this phenomenon. We have twice observed intramedial leiomyomas of subcutaneous veins in which the tumorous growth took place entirely within the vein wall, producing a fusiform swelling. Malignant sarcoma of the inferior vena cava has been described by König (1931) and several others. How frequently this occurs is impossible to determine since the difficulties of proving that a tumor arose from a blood vessel wall and not outside of it are usually insuperable.

SUMMARY

This brief compendium has attempted to review the rather large and varied group of tumors and tumor-like malformations composed of blood vessels. The subject is rendered complex because of the great variety of names devised to label lesions displaying different histological and clinical features. Basically the great majority of vascular growths are benign and only cause trouble because of hemorrhage, disfigurement or damage to a vital organ such as the brain. Malignant vascular tumors are very rare and feature especially either the endothelial cell or the pericyte.

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NEW DRUG AIDS TREATMENT OF MENINGITIS

The combined use of sulfonamides and penicillin in the treatment of pneumococcic meningitis appears to be more effective than any previous method used in combating this disease, Antonio J. Waring, Jr., M. D., and Margaret H. D. Smith, M. D., Baltimore, report in *The Journal of the American Medical Association* for October 14.

Of 12 patients with the disease who were given combined penicillin and sulfonamide therapy, 11 recovered and one died. "These results," they say, "are better than our experience with sulfonamide alone, with sulfonamide and serum combined or with penicillin alone." They point out that prior to the development of the sulfonamides, pneumococcic meningitis was almost invariably a fatal disease. With the advent of the sulfonamides and later its combined use with serum, the mortality rate has been lowered to some extent.

They point out that the mortality rate of the disease is particularly high in infants. "Eight of our 12 cases," they say, "fall under 2 years of age. With serum and sulfonamide therapy we could have expected to lose 6 or 7 of these 8 infants. Under penicillin and sulfonamide therapy we lost 1. All 4 older patients recovered. Under the old form of therapy we would have expected to lose 1. . . ."

TUMOR SEMINAR*

CONDUCTED BY

ARTHUR PURDY STOUT, M. D.

NEW YORK, N. Y.

Associate Professor of Surgery, Columbia University, College of Physicians and Surgeons, New York City.

Dr. J. E. Robinson, Temple, chairman of the Section, presided. Dr. T. P. Churchill, Amarillo, was secretary of the Section.

Dr. Robinson, chairman: Dr. A. P. Stout, guest of the Section, will discuss the tumors singly or in groups as he elects. About fifteen minutes will be given for the study of three slides, following which each pathologist is requested to write his diagnosis and pass it to Dr. Stout. Dr. Stout will then give a microscopic description of each slide and will discuss the differential diagnosis, treatment and prognosis. There will be opportunity for discussion from the floor. The seminar is now turned over to Dr. Stout, who will conduct it. Dr. Stout.

CASE 1

History (presented by Arthur P. Stout, M. D.), Slide No. 1, Path. No. 31076.—The patient was a man, age 50, who had a tumor of the right axillary region, of only two weeks known duration. The tumor was removed from beneath the pectoralis major muscle. It measured 12 cm. in diameter and was gelatinous on section. (Case history by Dr. J. A. Moore, Santa Rosa Hospital, San Antonio.)

Microscopic Description.—The tumor is composed in some areas of a myxoid type of tissue with small stellate cells and very loose-textured stroma. Tumor tissue of this type merges with other parts in which extremely bizarre large cells are found with foamy lipoid-containing cytoplasm and extraordinary gigantic nuclei. With the scarlet red stain, one can observe that many of the small cells also have fine vacuoles and are doubtless lipoblasts. Finally, there is a third variety of tissue composed of rather large spindle-shaped cells, which are packed closely together in bundles suggesting the arrangement of a fibrosarcoma. The tumor infiltrates between muscle bundles.

Diagnosis, by Dr. Stout: *Liposarcoma (undifferentiated myxoid type) of pectoral region.*[1]

CASE 2

History (presented by Dr. J. A. Moore), Slide No. 2, Path. No. A2792.—V. K. Jr., a white baby, age 14 months, had a history of having had an injection of pertussis vaccine in the upper left thigh several months ago. About four months ago, the child's mother noticed a small hard lump in the left thigh. The lump gradually grew larger until the parents consulted a physician. At the time of removal, September 7, 1943, there was a fluctuating tumor, about 2½ by 1½ inches in the lower external surface of the left thigh. When received for examination the specimen consisted of an ovoid tumor 5 cm. in the widest diameter. Upon sectioning, it consisted of a soft gelatinous tumor which seemed to be well encapsulated.

Microscopic Description.—Sections from four different areas show that this is a tumor made up of widely spaced, stellate cells with a great deal of mucoid intercellular substance containing a few very delicate reticulin fibres. Throughout most of the sections, this general architecture is maintained. About the periphery the tumor, although circumscribed, actually tends to infiltrate the aponeurotic fibres which presumably are the fascia lata. In the same peripheral zone, it infiltrates the fat. The fat is only partly completely adult in character. Some of it still maintains the embryonal appearance which characterizes the fat of a newborn infant. This closely resembles the appearance of the tumor cells because fat develops from undifferentiated mesenchyme which is very much like myxomatous tissue. One can tell the embryonal fat from ordinary myxomatous tissue by the intermixture of irregularly shaped cells with lipoid-containing vacuoles, signet ring cells, adult fat cells, and an increased number of capillary blood vessels. It is almost impossible to tell where embryonal fat ends and tumor tissue begins.

Diagnosis, by Dr. Stout.—*Liposarcoma (?) (differentiated myxoid type) of thigh.*

DISCUSSION OF CASES 1 AND 2

Case 1. Liposarcoma.—

Dr. A. P. Stout: Cases 1 and 2 will be discussed together, since they are closely related and present several common problems. In my opinion, the first case is a characteristic liposarcoma. I recognize four different histological types of liposarcoma[2]:

1. The differentiated myxoid type, which many pathologists prefer to call myxolipoma. It is composed of adult and embryonal fat cells and myxoid tissue. While it maintains this morphology it does not metastasize but, since it may change into one of the more malignant types, it seems proper to me to classify it as a form of sarcoma.

2. The undifferentiated myxoid type composed of bizarre lipoblasts and myxoid tissue, of which Case 1 is an example. These first two forms caricature the ordinary variety of lipogenesis in the embryo.

3. The round cell form made up of masses of foamy rounded cells often of bizarre appearance and simulating embryonal brown fat.

4. Tumors combining the features of both the second and third types, sometimes with areas suggesting fibrosarcoma.

The last three types are all definitely malignant and about 40 per cent of them metastasize. They often grow very slowly and

*EDITOR'S NOTE.—The tumor seminar conducted by Dr. Stout was presented by the Section on Clinical Pathology of the State Medical Association of Texas, San Antonio, May 3, 1944. Dr. Stout was a guest of the Section. Twenty-seven neoplasms were studied by those participating in the seminar, selected from material furnished by San Antonio pathologists and pathologists of the Army base hospitals stationed in and near San Antonio. Forty pathologists participated in the seminar.

The procedure was as follows: first, the case history of each tumor studied was given and was available to each of the pathologists present.

Second, a microscopic description of each section studied was then given by Dr. Stout.

Third, after each of the pathologists had handed in their diagnoses to Dr. Stout, he reviewed them and then gave his diagnosis to the group.

Fourth, a discussion of each case was given by Dr. Stout, in some instances cases being grouped for convenience.

1. EDITOR'S NOTE.—Case 1 was discussed with Case 2, by Dr. Stout, and the discussion follows the history, microscopic description and diagnosis of Case 2.

[2]Stout, A. P.: Liposarcoma—the Malignant Tumor of Lipoblasts, Ann. Surg. 119:86-107 (Jan.) 1944.

some of them reach an enormous size without metastasizing. In our experience radical surgical removal has been the preferred form of treatment but it often fails to cure, especially in the retroperitoneal region because of the insidious way in which these tumors infiltrate. Some liposarcomas are radiosensitive, especially if small. Two small recurrent nodules were dealt with successfully by x-ray at the Presbyterian Hospital, but we know of no large cases cured by radiation.

Case 2. Myxoma or Liposarcoma.—Case 2 in the slides at your disposal is a pure myxoma. I was able to make sections of this tumor at its periphery where it is infiltrating the surrounding fat. In this region there are

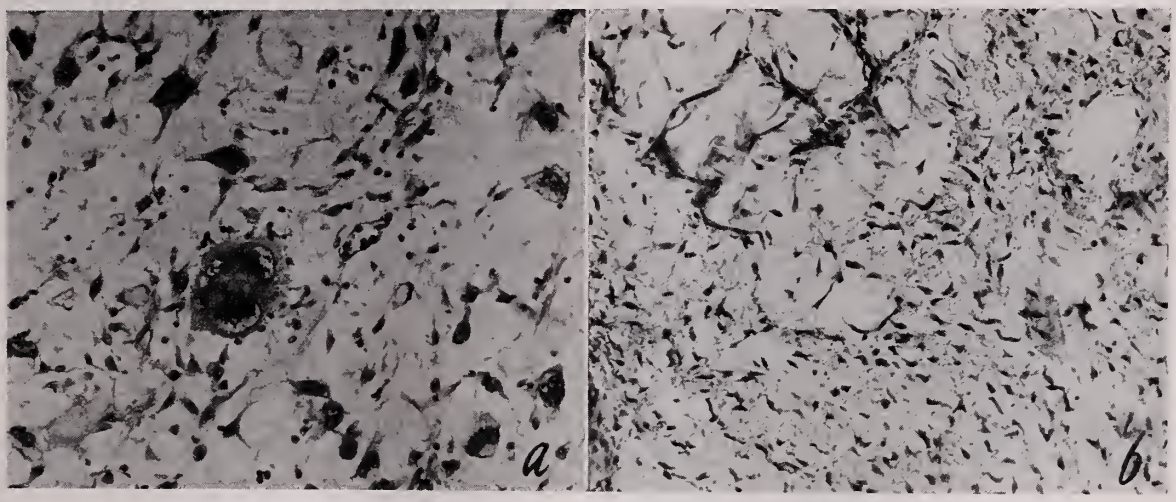

FIG. 1*a*. (Case 1.)—Liposarcoma of pectoral region. Bizarre lipoblasts in a myxoid stroma. × 150.
b. (Case 2.)—Myxoma or liposarcoma of thigh. From the periphery of the tumor showing its relationship with the adipose tissue. × 150.

definite lipoblasts. This raised an interesting question. Is this process lipogenesis occurring in the adipose tissue of this 14-month-old infant, or is it part of the tumor? It is an established fact that lipogenesis is incomplete in the newborn infant but it is doubtful if it continues for as long as fourteen months after birth. Thus, it seems to me impossible to decide whether we are dealing with a pure myxoma, which has grown in still immature subcutaneous fat, or a differentiated myxoid liposarcoma which shows lipogenesis only at its periphery. In either event, the tumor is not likely to metastasize, although it may reappear locally if excision has been incomplete. So far as I am aware, the pure myxoma does not metastasize. The myxoma is a tumor composed of tissue resembling undifferentiated mesenchyme. Since lipoblasts develop from mesenchyme and closely resemble its cells, it does not seem very important which diagnosis is selected for this tumor.

CASE 3

History (presented by Arthur P. Stout, M. D.), Slide No. 3, Path. No. 53351.—The patient was a white female, 25 years old, who, ten years before admission, noticed a small "pimple" in the left infraclavicular region. There was very slow increase in size without any symptoms except crusting. On examination the area measured 45 x 30 mm., was red, firm, fibrous and slightly depressed. Two and one-half months later the area was excised. Two months after this the scar was re-excised and the supraclavicular nodes were removed. Five months after the first operation the axillary nodes were removed. No tumor was found in the scar or axillary nodes. One hundred and seventeen months after the first operation there was no evidence of recurrence.

Microscopic Description.—A longitudinal section through the entire width of the lesion shows that the skin has been thickened in a wedge-shaped manner so that the greatest amount is in the center with a gradual tapering off at both sides until the normal is reached. In this dense fibrous area are set many small groups of rounded cells which are usually without differentiation but sometimes form acini with acidophilic secretion in their lumens. The tumor cells invade the subcutaneous fat extending especially along blood vessels and fibrous trabeculae and sometimes within nerve sheaths.

Diagnosis, by Dr. Stout: *Sweat Gland Carcinoma of Infraclavicular Region.*

DISCUSSION OF CASE 3

Dr. A. P. Stout: The third case is an example of a sweat gland carcinoma. The sweat gland tumors have recently been described by Shields Warren and his associates.[3] These authors emphasize the fact that tumors called sweat gland carcinomas rarely metastasize. Their experience covering much of New England did not include a single personal example and they found reports of only four cases in the literature. In the Laboratory of Surgical Pathology of Columbia University we have recorded 26 cases

[3]Gates, O., Warren, S., and Warvi, W. N.: Tumors of Sweat Glands, Am. J. Path. 19:591-631 (July) 1943.

of sweat gland carcinoma, as only 3 of these are known to have metastasized. Case 3 is interesting because, instead of causing a projection above the skin surface, it has made a depression where the tumor is thickest and penetrates most deeply. If it were not in the skin, one might mistake it for a fibrous breast carcinoma. There is good reason to believe that this case is cured and has not metastasized, because the woman remains well ten years after operation.

Dr. J. J. Andujar, Fort Worth: I notice you didn't call the first case lipomyxosarcoma. Do you feel that lipomyxosarcoma does not occur in the adult? Do you object to the hyphenating of names?

Dr. A. P. Stout: I do object to hyphenated names, because I believe they accomplish no

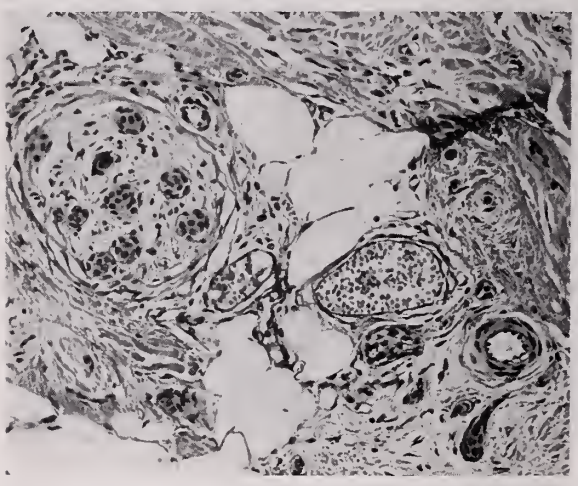

FIG. 2. (Case 3.)—Sweat gland carcinoma of infraclavicular region showing tumor cells in a subcutaneous nerve sheath. × 150.

useful purpose either scientific or clinical. I feel that we should strive to attain the greatest degree of simplification possible in nomenclature. From the scientific point of view, one should try to ascertain the type cell of each tumor group and name the tumor after it. If, because of metaplastic activities, a tumor of one tissue type happens to make other tissues, it is simply confusing to express that fact in the name. From the clinical point of view, it is also undesirable because it increases enormously the number of tumor varieties about which it is necessary to accumulate data regarding the clinical course, treatment and prognosis. The greater the number of tumor names, the less we can know about each one of them.

Dr. M. D. Bell, Dallas: In the second case, is there any history to indicate whether or not there has been any recurrence? The sections do not show any evidence of malignancy at all. I would also like to know about the relation of the pertussis vaccine.

Dr. A. P. Stout: As to the relationship of the pertussis vaccine, I cannot say, but I imagine it was probably a fortuitous association. Drs. Moore or Severance may know the follow-up.

Dr. J. M. Moore, San Antonio: So far there has been no evidence of recurrence. It has been about a year now. My guess is that it might recur.

Dr. G. T. Caldwell, Dallas: It is easy to be in agreement with the diagnosis of liposarcoma in the first section, but it is a good deal more difficult with this hematoxylin stain to feel that the second case is a fat tumor. The thing I would like to know is, does this adipose tissue produce these fibrillar structures which are present?

Dr. A. P. Stout: I tried to explain that I had an unfair advantage because I have seen other sections of the second case where fat is shown. In your sections there is nothing but myxoid tissue. The production of connective tissue fibers by cells other than fibroblasts is a well established fact; histiocytes, Schwann cells, mesothelial cells and probably many others have the power of making connective tissue fibers. For this reason, I do not believe the fibrils in this case can aid in the interpretation of the tumor origin.

Dr. Caldwell: The lipoid content wouldn't be in accord with these being Schwannian cells?

Dr. A. P. Stout: No, tumor Schwann cells do not make lipoid. I think the correct diagnosis to make on the slides of Case 2, which you have available, is myxoma. I have already explained that the only reason I raised the question of liposarcoma was because of the lipogenesis observed at the periphery in sections which you have not seen.

CASE 4

History (presented by Arthur P. Stout, M. D.), Slide No. 4, Path. No. 21079.—A white female, age 68, had had a pain in the right breast for two years, and a lump which, after a blow some months before, became black and blue and began rapidly to increase in size. It was the size of an orange when simple mastectomy was performed. It measured 7 x 4.5 x 3.5 cm., and grossly suggested a hemorrhagic fat necrosis. One month after mastectomy there was a recurrence in the scar from which blood was aspirated. Three months after mastectomy there were metastases in both lungs and the right ischium, and soon after this, numerous skin metastases over the opposite breast and forehead. In spite of irradiation with x-ray and radium she died four months after operation. (Case history by Dr. A. O. Severance, San Antonio).

Microscopic Description.—Sections of the tumor from the breast show it is made up of innumerable anastomosing blood vessels which infiltrate the breast tissues freely. The vessels vary greatly in

relative size. A few of them are lined by simple endothelial cells. The vast majority, however, are lined by cells which are larger than normal, tend to be rounded, and are frequently heaped up forming masses which project into the lumen. In several areas the cells have also invaded the tissues outside of the vessel wall. In several places hemorrhages have occurred. Some of the clots show evidence of beginning organization.

Diagnosis, by Dr. Stout: *Hemangio-Endothelioma of Female Mammary Gland.*

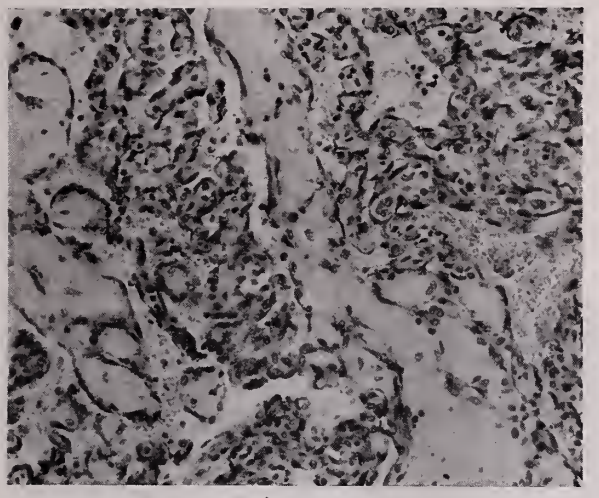

FIG. 3. (Case 4.) Hemangio-endothelioma of female mammary gland. × 150.

DISCUSSION OF CASE 4

Dr. A. P. Stout: In my opinion this is a characteristic example of a malignant hemangio-endothelioma. Since I shall talk about the tumors of blood vessels at tonight's session, I shall curtail my remarks at this time. The hemangio-endothelioma[4] tends to form vascular tubes in which the endothelial cells are heaped up projecting into the lumen and sometimes infiltrating into the surrounding tissue. Although there is a rare benign form occurring usually in infants, the majority of cases are malignant and metastasize freely through the blood and sometimes the lymphatic systems. The mammary gland cases have all been exceptionally malignant like this one. It will be noticed that some of the tumor capillaries resemble those of a simple hemangioma except that they anastomose much more freely. If this type of growth dominates the picture it may be misinterpreted as benign hemangioma, and this fact has given rise to the myth about benign metastasizing hemangiomas. In my opinion, all of the tumors so designated have been in fact hemangio-endotheliomas. This tumor form is radio-resistant and the only hope of cure is by radical surgery.

[4]Stout, A. P.: Hemangio-endothelioma; Tumor of Blood Vessels Featuring Vascular Endothelial Cells, Ann. Surg. 118: 445-464 (Sept.) 1943.

CASE 5

History (presented by Arthur P. Stout, M. D.), Slide No. 5, Path. No. 21614.—A female, aged 31, had a painless tumor of eight months duration removed from the popliteal space, which was apparently but not actually encapsulated. The tumor did not involve the synovial tissues of the knee joint, and amputation was refused. One year later the patient was well. (Case history by Dr. G. H. Klinck, Samaritan Hospital, Troy, New York).

Microscopic Description.—The section shows that the tumor is made up of cords of large cells which are sometimes solid and sometimes form slit-like spaces. Many of the cells contain vacuoles in which there is a material which reddens with mucicarmine. Between the cords is a rather inconspicuous cellular tissue composed of spindle-shaped cells and reticulin fibers which resembles fibrosarcomatous tissue.

Diagnosis, by Dr. Stout: *Characteristic Synovial Sarcoma.*

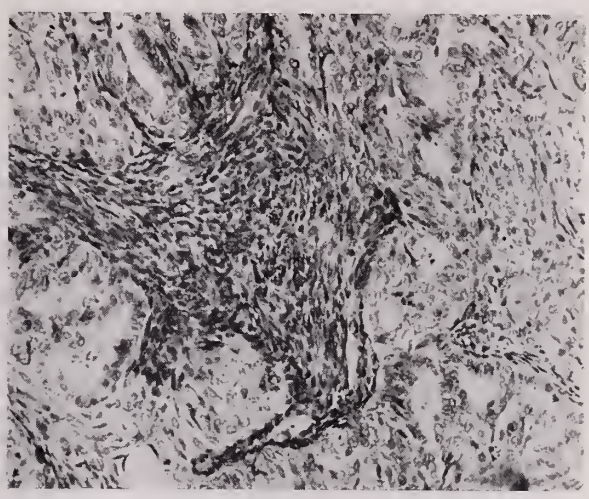

FIG. 4. (Case 5.)—Synovial sarcoma of knee region. × 150.

DISCUSSION OF CASE 5

Dr. A. P. Stout: This tumor from near the knee joint is a characteristic synovial sarcoma. My associates at Columbia University have been studying this tumor type with me. We have nine previously unpublished cases and sections from five others already published by Briggs[5] and by DeSanto, Tennant, and Rosahn.[6] There has been a good deal of misconception engendered about the synovial sarcoma because a number of authors have called giant cell tumors of joint, benign synovial hyperplasias of tumor-like aspect and even pure inflammatory masses by this name. In our belief the term should be used only for a tumor like this made up of malignant synovial cells with a tendency to assume a cuboidal or columnar shape when they line the frequent slits or cavities formed by them and associated with them strands of hyper-

[5]Briggs, C. D.: Malignant Tumors of Synovial Origin, Ann. Surg. 115:413-426 (March) 1942.

[6]De Santo, D. A., Tennant, R., and Rosahn, P. D.: Synovial Sarcomas in Joints, Bursae and Tendon Sheaths; Clinical and Pathological Study of Sixteen Cases, Surg., Gynec. & Obst. 72:951-981 (June) 1941.

chromatic spindle cells of malignant aspect accompanied by delicate reticulin fibers. These two cell types are always present and inextricably intermingled but the relative quantity of each in any given tumor varies greatly. The synovial cells secrete a mucoid mucicarminophilic material which is probably hyaluronic acid. This is a material resembling the mucus secreted by the epithelial cells of mucous membranes but which is formed by the mesothelial cells of the peritoneum, synovia and other mesodermal cells. Karl Meyer of Columbia University has demonstrated the existence of a hyaluronidase which he has isolated.[7] The effect of this ferment is to fluidify the thick tenacious mucoid hyaluronic acid. In a case of primary mesothelioma of the peritoneum, which was treated at the Presbyterian Hospital in New York, it became impossible to aspirate the very thick mucoid material which accumulated in the peritoneal cavity. The injection of hyaluronidase made this material watery so that it could be aspirated with ease.[8] Using our strict criteria, we have been able to assemble only 104 cases of synovial sarcoma from reports and our own records. All of them were in the extremities and nearly half in the region of the knee joint. The tumor is slow in its growth but metastasizes usually through the blood stream and occasionally through the lymphatics. We could find records of only three clinical cures over five years after surgical treatment. This may be because amputation has been infrequent and usually secondary after attempted local excision had failed. Radiotherapy has rarely been tried and has apparently been unavailing.

Dr. S. A. Wallace, Houston: I would like to know more about the hyaluronic acid idea. I suppose it is still correct to use the term mucoid carcinoma, but when it comes to these other tumors, what are you going to call them? I would also like to know if myxomatous material is similar.

Dr. A. P. Stout: Hyaluronic acid is the mucus-like material that comes from some mesodermal cells. Since it resembles mucus, it is quite proper to use either the words "myxoid" or "mucoid," both of which mean "like mucus."

CASE 6

History (presented by B. F. Stout, M. D.), San Antonio. Slide No. 6, Path. No. 9A-64.—This specimen was from an autopsy done on a woman about 50 years of age, who was very obese and who had no clinical symptoms referable to the lung. The patient died from what was thought to be a heart lesion. The autopsy showed the left pleura, both parietal and visceral, covered in the region of the base of the lung with masses of rounded, smooth tumors arranged in festoons and grape-like clusters varying in size from 5 mm. to 6 cm. The surface was smooth. A search of the lung did not reveal an invasion at any point, and the complete autopsy showed no tumors in any organs of the body. The pleural cavity was full of blood. (Case history by Dr. O. J. Potthast, San Antonio).

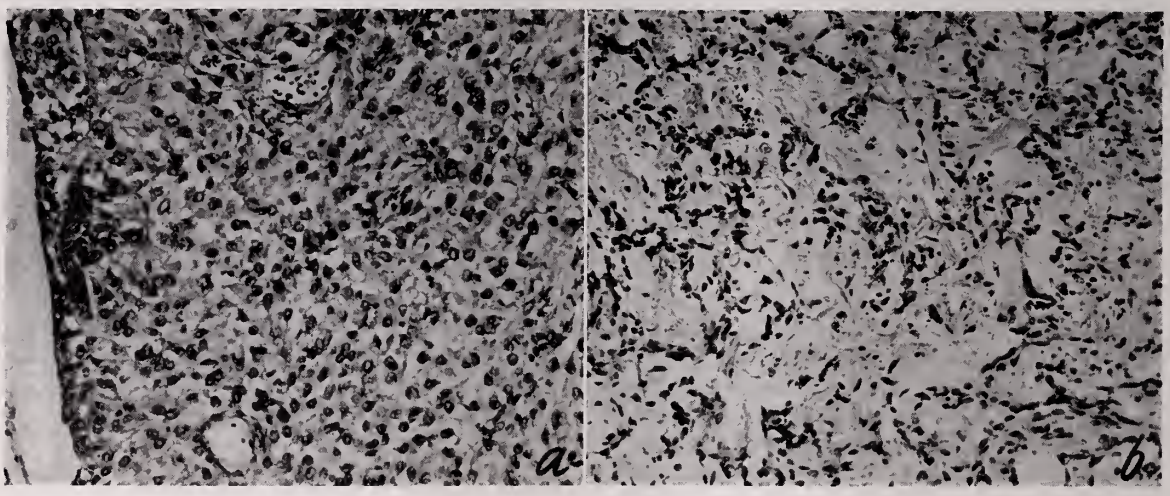

FIG. 5*a*. (Case 6.)—Mesothelioma of pleura. Margin of tumor attached to pleura at left. × 150.
b. (Case 7.)—Neurofibroma? of pleura. × 150.

Microscopic Description.—Sections show that the tumor is made up chiefly of rather large amorphous cells, which are usually loosely placed with many fine connective tissue fibers between them. Occasionally, however, they are crowded more closely together and the intercellular fibers are few or absent. Nowhere are any acini formed. Some of the cells contain several nuclei and not infrequently the cytoplasm is vacuolated. Mitoses are infrequent. Where the tumor comes into contact with the lung it seems to respect it and there is no definite evidence of invasion. The tumor cell cytoplasm in some areas

[7]Meyer, K., Chaffee, E., Hobby, G. L., and Dawson, M. H.: Hyaluronidases of Bacterial and Animal Origin, J. Exp. Med. 73:309-326 (March) 1941.
[8]Meyer, K., and Chaffee, E.: Hyaluronic Acid in Pleural Fluid Associated with Malignant Tumor Involving Pleura and Peritoneum, J. Biol. Chem. 133:83-91 (March) 1940.

is decidedly acidophilic, and some of the cells faintly suggest myoblasts. No cross striations are seen.

Diagnosis, by Dr. Stout: *Mesothelioma (?) of Pleura.*

CASE 7

History (presented by John M. Moore, M. D.), San Antonio. Slide No. 7, Path. No. A2929.—A. W., a white male, age 60, had an operation September 20, 1943, for a large, hard tumor mass attached to the lower right lobe and to the lateral pleura with complete atelectasis of the lower lobe. There was no attachment to the diaphragm. (This is from the operative record.) The gross specimen consisted of an irregular tumor mass, which measured 22 by 13 by 12 cm., somewhat lobulated. Upon sectioning, it was found to be rather firm in consistency, greyish in appearance, with some small hemorrhagic areas noted.

Microscopic Description.—Sections show a fibrous growth composed of spindle-shaped cells which are quite elongated, with exceedingly little cytoplasm and cigar-shaped nuclei. They tend to be arranged into bands and are accompanied by a good many thick and thin reticulin fibres. In the hematoxylin and eosin preparations the nuclei occasionally suggest palisading and the variations in the density and thickness of the fibres accompanying the cells make the cell cords have a very irregular arrangement in their spacing and relationship one with another. There are a moderate number of blood vessels but these do not participate in the tumor. The tumor seems to be encapsulated.

Diagnosis, by Dr. Stout: *Neurofibroma (?) of Pleura.*

DISCUSSION OF CASES 6 AND 7

Dr. A. P. Stout: In cases 6 and 7 we have two pleural tumors, both of which are unusual, and in my opinion the diagnosis in both is uncertain. In Case 6, the tumor definitely spread out over the surface of the pleura, did not seem to involve the lung and there was no evidence of tumor elsewhere in the body. It seems, therefore, that it must arise either from the mesothelial cells of the pleura or from the subpleural tissues. I would be inclined to reject the mesothelial cells of the pleura as a possible origin were it not for the fact that in a case with somewhat similar morphology, my associate Dr. Margaret Murray explanted tumor tissue in vitro and obtained a growth similar to that of normal pleural mesothelium. So that although the tumor was made up of spindle cells, reticulin fibers and blood vessels just as in Case 6, we came to the conclusion the growth must be a mesothelioma.[9] It is true that it is not at all like the usual mesothelioma which has a fibrous stroma in which gland-like spaces are formed and a mucoid material secreted but since it has been shown by Maximow that normal mesothelial cells can produce a fibroblastic tissue in vitro, one may believe in the possibility of the origin of such fibrous tumors as these from the mesothelium of the pleura. If pleural mesothelium is rejected, one is at a loss to suggest any of the subpleural tissues as a possible origin.

Case 7 is a very large solitary tumor and quite different in appearance from Case 6. It is a distinctly fibrous tumor with areas in which the nuclei have some suggestion of palisading. Now I think that probably we will all recognize that it is unlike the ordinary solitary nerve sheath tumor which has such a striking and distinctive morphology and that it does not have the usual appearance of a neurofibroma, because there is a great deal too much fibrous tissue. We know, of course, that some of the smooth muscle cells can palisade their nuclei not only in tumors but, for instance, in an obliterated appendix. But it seems to me very unlikely that these are smooth muscle cells. The most plausible explanation I can offer for this tumor is that it is a neurofibroma in which the usual appearance is masked by the great amount of connective tissue fibers contained within it.

Major King: In the discussion of the published case of mesothelioma, as I recall, I believe you put in a notation that Dr. Pappenheimer didn't agree that the tumor was a mesothelioma. I wonder if you can say whether you ever agreed. Would you consider at all the possibility of a leiomyosarcoma of smooth muscle. In regard to Case 7, I have never been able to get a perfect explanation of what is a neurofibroma.

Dr. A. P. Stout: Dr. Pappenheimer still remains on the opposite side of the fence. That case which Dr. Murray and I called mesothelioma had some peculiar leiomyomas of the uterus and Dr. Pappenheimer felt that the lung and pleural tumors were metastases from one of these. Now Dr. Murray is quite familiar with the appearance of both smooth muscle and mesothelium in vitro. The explants grew exactly like mesothelium and not at all like smooth muscle. Therefore we cannot accept the possibility of its being a smooth muscle tumor. Dr. Pappenheimer is unwilling to accept tissue culture as a reliable method for recognizing mesothelium and he therefore retains his opinion. In Case 6, it is stated that the autopsy revealed no tumors other than the one in the pleura so that this one cannot be considered a metastasis. One might suggest that the tumor came from the smooth muscle of subpleural veins but if so it has assumed a form unlike any leiomyoma or leiomyosarcoma with which I am familiar and I do not believe that it is one.

The neurofibroma, in my opinion, and again I am relying upon tissue culture, is simply one variety of Schwann cell tumor. Both the neurofibroma and the Schwannoma or neurilemoma, as I prefer to call it, are com-

[9] Stout, A. P., and Murray, M. R.: Localized Pleural Mesothelioma; Investigation of Its Characteristics and Histogenesis by Method of Tissue Culture, Arch. Path. 34:951-964 (Dec.) 1942.

posed largely of Schwann cells. The neurofibroma has neurofibrils scattered all through it while in the neurilemoma they are usually confined to the periphey and there are few or none in the center. The Schwannian cells have an organoid arrangement in the neurilemoma while in the neurofibroma they are more diffusely arranged. But both are closely allied and both are Schwannian manifestations.

Dr. Charles Phillips, Temple: What is the difference between mesothelioma and endothelioma? Is endothelioma a very good term for the growths that come from the pleura and pericardium? What would we call Ewing's tumor?

Dr. A. P. Stout: The difficulty has been that, in the past, particularly quite far back in the past, the tumors which were derived from the pleura and pericardium were often called endotheliomas. The same is true of peritoneal, meningeal and some bone marrow tumors. This makes for great confusion since it applies the same name to a variety of tumors of very different cell make-up and biological characteristics. The peritoneal, pleural and pericardial tumors derived from the lining cells should be distinguished by the name mesothelioma and the meningeal neoplasms called meningioma. I should like to see the term endothelioma used only in connection with tumors derived from vascular endothelium. It is true that Dr. Ewing called his tumor of bone marrow an endothelial myeloma but I do not think that he intended to suggest a derivation from vascular lining endothelium. Charles Oberling believes that Ewing's tumor is derived from young reticular cells in the bone marrow but Ewing would never agree to this and the disagreement between these two distinguished men regarding the nature of Ewing's tumor remains unsettled.[15] For this reason we must continue to call it Ewing's tumor.

CASE 8

History (presented by B. F. Stout, M. D.), San Antonio. Slide No. 8, Path. No. P317-A.—The patient, an anemic female, age 41, had a physical examination which revealed fibroid tumors of the uterus. The history is irrelevant, both preoperatively and since the operation, which was done December 9, 1943. The uterus was submitted without adnexa. It measured 10 by 8 by 7 cm., and upon bisection, the wall near the fundus was found to be occupied by a soft cystic mass, measuring 4 by 5 cm. The wall was soft with a mottled pinkish gray color, with a band of golden yellow color in the region of the cyst. The cyst contents were mucoid. There were numerous leiomyomas, both intramural and subserous. (Case history by Capt. C. E. Bosshardt, Valley Baptist Hospital, Harlingen, Texas.)

Microscopic Description.—The sections show that there is a growth in the uterine myometrium which is largely necrotic. In a few areas there are small groups of viable cells which are small rounded with delicate reticulin fibers between them. The viable cells are usually gathered about blood vessels. Where the growth comes into contact with the surrounding myometrium its cells tend to be somewhat elongated instead of rounded.

Diagnosis, by Dr. Stout: *Degenerated Leiomyoma of Uterus (?).*

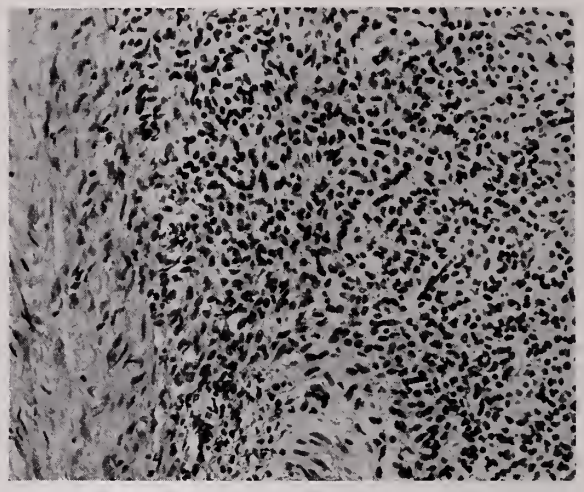

FIG. 6. (Case 8.)—Degenerated leiomyoma of uterus simulating endometrial stroma. From the periphery of the tumor with uterine muscle at the left. × 150.

DISCUSSION OF CASE 8

Dr. A. P. Stout: The lesion in the uterus is a very interesting and puzzling one to me, and frankly I do not know what it is. Therefore I shall not be dogmatic but tell you that I think it is a form of degeneration of a leiomyoma. I have seen one other case exactly like this one, which also was found by chance in one tumor in a uterus filled with leiomyomas. That one, as far as I have been able to ascertain, was benign and I believe that this will also prove harmless. This is another example of the fact that peculiar forms of degeneration in leiomyomas can mislead the pathologist into thinking he is dealing with a malignant tumor. Whether or not this particular variety of change has been described I do not know.

Dr. A. O. Severance, San Antonio: Can you tell me the difference between endometrial stroma cells and degenerated smooth muscle cells?

Dr. A. P. Stout: The question has been raised by a number who have previously studied this case as to whether or not it is an endometrial sarcoma. I believe it was Dr. Robert T. Frank[10] of New York who first described a lesion which resembled en-

[15]Stout, A. P.: Discussion of Pathology and Histogenesis of Ewing's Tumor of Bone Marrow, Am. J. Roentgenol, 50:334-342 (Sept.) 1943.

[10]Frank, R. T.: "Fibromyosis": Unclassified Plexiform Endolymphatic Proliferation of Uterus, with report of 3 cases, Am. J. Cancer 16:1326-1336 (Nov.) 1932.

dometrial stroma and invaded the uterine wall diffusely and within both veins and lymphatics. He called it fibromyosis. Later authors, such as Brown and Liber,[11] have used the name uterine tumor of endometrial stroma type or endometrial sarcoma. We have seen only 3 cases which we have recognized and in all of them the infiltrating tumor tissue was a faithful reproduction of the endometrial stroma and did not look malignant. In Frank's first case, recurrence took place after nine years and death from local infiltration of the pelvis after seventeen years. In one of our cases there was a recurrence in the abdominal cicatrix three years after hysterectomy in a 31 year old unmarried woman. She is now free from evidence of disease thirteen years after hysterectomy. In all of these cases, however, the tumors infiltrated the uterine wall and closely resembled endometrial stroma. In my opinion this tumor neither resembles endometrial stroma nor infiltrates the uterine wall.

Dr. G. T. Caldwell, Dallas: I don't want to ask an embarrassing question at all, but when we talk about leiomyoma degenerating into a kind of tissue that you don't recognize as muscle, I would like to know what that means. What does it degenerate into?

Dr. A. P. Stout: I cannot answer that question. I think it is an "escape" description. I don't believe we know what we are looking at. You could, if you wish, call this a sarcoma, but I do not believe it will behave like a malignant tumor.

Dr. Caldwell: Could it be some other form of endometrial stroma?

Dr. A. P. Stout: I do not know. Do you think this looks like endometrial stroma?

Dr. Caldwell: Yes, that is my guess. I think it is an exact reproduction of endometrium forming there and is a less exacting type that forms an embryonic type of endometrium.

Dr. A. P. Stout: Wouldn't you expect that to be malignant?

Dr. Caldwell: That depends upon how embryonic it is. As I saw the section of this tumor, it ought to reproduce endometrial stroma rather closely unless it represents an embryonic type rather than the fully developed endometrial stroma.

Dr. A. P. Stout: I think this raises the question of the diagnosis of some of these uterine tumors as to whether or not one is to make the diagnosis purely on histological characteristics and call all bizarre-appearing mesodermal uterine lesions "sarcoma regardless of whether or not they behave in a malignant fashion. This arises most frequently in cases of leiomyoma with bizarre and monster cell formation. If the diagnosis of leiomyosarcoma is made in all such cases, as is urged by Wheelock and Warren,[12] it raises the number of cures by a very appreciable extent. Moreover, it may encourage the gynecologist to undertake unnecessary and mutilating operations in cases which are biologically not malignant. I came to this conclusion in 1929 and have never had occasion to regret it.[13] To return finally to Case 8, I do not believe it is a malignant tumor nor do I anticipate either recurrence or metastasis.

[11]Brown, C. R., and Liber, A. F.: Uterine Tumor of Endometrial Stroma Type, N. Y. State J. Med. 42:161, 1942.

CASE 9

History (presented by B. F. Stout, M. D., San Antonio.) Slide No. 9, Path. No. P-319.—The physical examination of a Latin American female, age 45, showed a mass in the region of the left kidney. She was admitted to the Valley Baptist Hospital, Harlingen, Texas, November 2, 1943. The specimen consisted of a kidney, which, on being opened longitudinally, showed a growth occupying two-thirds of the kidney structure and measuring 12 by 6½ by 5 cm. It was irregularly outlined and was invading the kidney structure. The surface was a yellow color with hemorrhagic areas. Adjoining this area in the region of the pole was a separate mass which showed a semi-translucent structure. There were several irregular, ragged gray portions of tissue, which were apparently torn from the kidney at operation and from which latter area the section was taken. On November 29, x-ray study of her chest showed nodular masses in the right lung. The patient died in February, 1944. (Case history by Dr. H. Lamm, Valley Hospital, Harlingen, Texas.)

Microscopic Description.—The sections have been stained with hematoxylin and eosin, Masson's trichrome stain and Laidlaw's silver connective tissue stain. They show that the tumor is made up of rather large spindle-shaped cells collected into interlacing bundles. The cells are wrapped about by blackened reticulin fibres and there are also long, straight, wire-like fibres between the cells running parallel with their long axes. The tumor cells themselves are rather large and plump. In some areas, extremely bizarre giant forms occur, with amorphous degenerated nuclei. Mitoses are very frequent, and there are a good many vascular spaces, most of which are empty, scattered irregularly through the tumor. A careful search fails to reveal any tendency for the cells to differentiate into epithelial forms. At its periphery the tumor seems encapsulated, but tumor cells actually infiltrate the capsule. In a few places tumor cells appear within the blood spaces.

Diagnosis, by Dr. Stout: *Fibrosarcoma of Kidney.*

DISCUSSION OF CASE 9

Dr. A. P. Stout: Case 9 is a tumor of the kidney. The diagnosis must lie between fibrosarcoma, leiomyosarcoma, rhabdomyosarcoma, and hypernephroid carcinoma. Our experience has taught us that the hypernephroid carcinoma can occasionally imitate the appearance of a fibrosarcoma in some

[12]Wheelock, M. C. and Warren, S.: Leiomyosarcoma of the Uterus, Ann. Surg. 116:882-890 (Dec.) 1942.

[13]Corscaden, J. A., and Stout, A. P.: Sarcoma of Uterus, Am. J. Roentgenol. 21:155-167 (Feb.) 1929.

areas. The cells may elongate, become arranged in interlacing bands and simulate a sarcoma. In all such cases that I have studied it has always been possible to find the characteristic appearance of the hypernephroid carcinoma somewhere if one hunts for it.

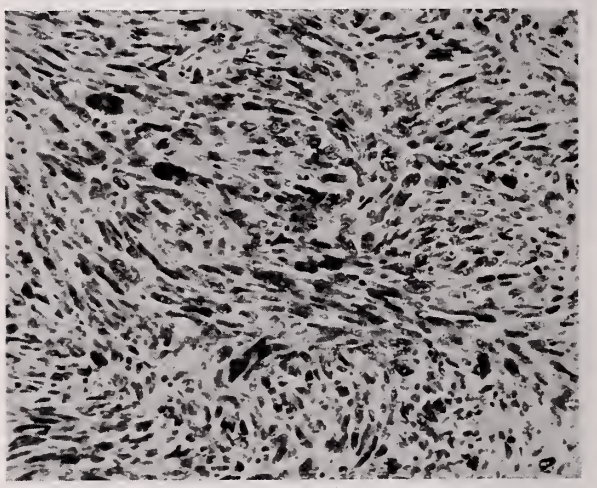

Fig. 7. (Case 9.)—Fibrosarcoma of kidney. × 150.

We had quite a generous portion of Case 9 to study and it never changed its appearance in any of the many areas studied. I could find no myofibrils with Masson's trichrome stain. I do not believe this is a rhabdomyosarcoma because it does not form any multinucleated vacuolated giant cells, no ribbon cells nor do the cells have a markedly acidophilic cytoplasm; consequently we are left with the diagnosis of fibrosarcoma, which I believe is the correct one. Mintz[14] reported two cases of fibrosarcoma of the kidney from the Massachusetts General Hospital in Boston. The patients in both died promptly and one was known to have metastases in the liver and peritoneum. He reviewed 93 reported cases of kidney sarcoma in adults and found 12 fibrosarcomas and 23 spindle cell sarcomas. This would suggest that fibrosarcoma of the kidney in adults is a rare and malignant tumor.

Colonel De Coursey: If one could demonstrate cross striations in Case 9 would you be willing to accept it as rhabdomyosarcoma?

Dr. A. P. Stout: Yes, I should have to. But cross striations have not been demonstrated so that the question does not actually arise.

Dr. Mathews, Shreveport, La.: Do you require the demonstration of cross striations?

Dr. A. P. Stout: No, I don't think that is necessary. I believe that the rhabdomyosarcoma has a fairly characteristic histology from which one can make the diagnosis without finding cross striations. Many of these tumors never reach that degree of differentiation. The diagnostic features are first the formation of multinucleated syncytial masses with vacuoles which do not contain lipoid. These giant cells are, I believe, a caricature of the way myoblasts grow in the embryo or in vitro. They also resemble the swollen ends of striated muscle fibers which have been cut across. Other features are the eosinophilic cytoplasm of many of the tumor cells and the formation of long ribbon-like cells which are plumper than fibroblasts and which are also like atypical myoblasts. Connective tissue fibres in rhabdomyosarcomas are usually rather insignificant.

[14]Mintz, E. R.: Sarcoma of Kidney in Adults, Ann. Surg. 105:521-538 (April) 1937.

CASE 10

History (presented by B. F. Stout, M. D., San Antonio), Slide No. 10, Path. No. VH-1111.—The patient, a male, age 68, was admitted to the hospital April 8, 1943. An enormous tumor, which was partly movable, was seen in the region of the left thigh, and at operation a hugh encapsulated tumor, 8 by 19 by 14 inches, was removed. Laboratory study showed it to be an irregular, lobulated tumor measuring 15 by 15 by 7 cm. Rounded lobes grew into the surrounding tissue, forcing their way through the layers of the fascia. The color varied from pink to hemorrhagic. Other areas showed a myxomatous structure. Additional masses were removed at a second operation August 11, 1943, and the patient died the same day. (Case history by Dr. J. D. Casey, Valley Baptist Hospital, Harlingen, Texas.)

Microscopic Description.—Sections show that in some areas this tumor is composed of rather large, spindle-shaped cells which tend to interlace and are accompanied by thick collagen fibres. Many of the cells have reached monstrous proportions, although in general they tend to maintain the spindle shape. In one area the tumor has an almost myxoid appearance. The cells are in general smaller, and the accompanying fibres more slender. A careful search with the trichrome stain fails to reveal any myofibrils. The Scharlach R stain shows only a very rare lipoid inclusion in the cells, and what little there is should probably be considered degeneration.

Diagnosis, by Dr. Stout: *Fibrosarcoma of Leg.*

DISCUSSION OF CASE 10

Dr. A. P. Stout: Case 10 is obviously a malignant sarcoma and the only question for decision is the cellular origin. It does not present any of the criteria of a rhabdomyosarcoma and I therefore reject that diagnosis. Running through the list of the other malignant mesodermal tumors, I reject liposarcoma, myxoma, leiomyosarcoma, synovial sarcoma and the malignant neurogenous and vascular tumors. This leaves only fibrosarcoma, and therefore I make that diagnosis. The criteria for recognizing the fibrosarcoma, by which I mean a tumor derived from fibroblasts, are still unsatisfactory, largely, I think, because other cells beside the fibroblasts can form connective tissue fibers. Dr. Margaret Murray and I are studying this

group by the method of tissue culture with the hope of gaining more information about them. In regard to the treatment of all of the soft part sarcomas which I have mentioned we can say that they are all radioresistant except perhaps the liposarcoma. When the liposarcoma is small it may be treated successfully by radiotherapy but never when it is large. Since this is a large tumor, the only treatment promising any hope of cure is radical surgery. The treatment of fibrosarcoma should be influenced, I think, by its anatomical site. Those tumors which arise in the skin or just beneath it are much less malignant as a class than the deeper tumors like this one. These facial and muscular fibrosarcomas metastasize readily through the blood stream and the only treatment which can be called curative when the tumor is in an extremity is amputation.

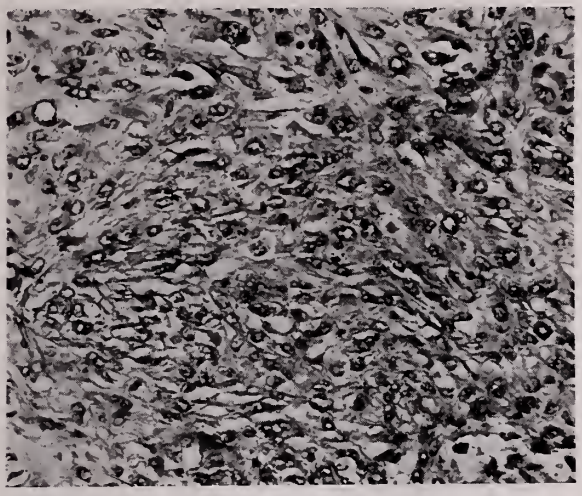

FIG. 8. (Case 10.)—Fascial fibrosarcoma of thigh. × 150.

CASE 11

History (presented by A. O. Severance, M. D., San Antonio), Slide No. 11, Path. No. 12N48.—The patient, a female, age 48, had noticed rough areas on the inside of her left cheek for eight weeks prior to her first hospital admission on July 25, 1941. There was soreness between the lower lip and the gum, but no bleeding. Her health otherwise was good. A Wassermann test proved negative, and blood count and urinalysis were essentially normal. Her past history was negative, or not given.

Physical examination revealed an irregular tissue growth between the lower lip and gum, with an ulcerated appearance. The buccal mucosa on the left showed irregular, rough, raised white areas. On July 24, 1941, an operation was performed, and cauterization and insertion of radium was done, using five 10 mg. and three 5 mg. needles to be left in place for three and one-half hours.

The ante-operative daignosis was: (1) carcinoma of the lower lip and floor of the mouth; (2) leukoplakia of the buccal mucosa; while the pathological diagnosis was squamous cell epithelioma, grade 1, of the lower lip.

On July 8, 1942, a biopsy of the lip was done and the diagnosis was (1) persistent squamous cell epithelioma (?) of lip, and (2) granulation tissue.

On February 10, 1943, the lymph nodes of the submental and submaxillary region were excised and one 50 mg. radium capsule inserted. The diagnosis made was squamous cell epithelioma of submaxillary lymph node following squamous cell epithelioma of the floor of the mouth and lip.

On October 19, 1943, a biopsy of the gum was done, and the diagnosis was radiation ulcer of gum of the mandible.

On November 22, 1943, a biopsy was done on a soft tumor of the gum of the mandible, and the diagnosis was (1) granuloma pyogenicum of gum of mandible; and (2) granulation cell sarcoma (?) of gum of mandible.

On December 20, 1943, cautery excision of exuberant granulation tissue of the gum was done, and the diagnosis was granulation cell sarcoma.

On January 11, 1944, the large fungating tumor was excised, cauterized thoroughly, and radium used heavily again. The diagnosis was granulation cell sarcoma—12N48.

On February 21, 1944, there was a recurrence of the same type of soft bulging growth of gum. The patient had had several attacks of an erysipeloid infection of the skin of the neck, which had been controlled by the use of sulfamerazine.

Microscopic Description.—The various sections show a good deal of necrotic material but also a growth of what appears to be cellular granulation tissue, which is characterized by the formation of interlacing bands of spindle-shaped cells and a relatively small number of capillaries. The spindle-shaped cells frequently appear swollen and sometimes form monster cells with bizarre nuclei. On one piece there is a little atypical tumor-like mucosal epithelium which forms anastomosing strands which infiltrate below the surface for a short distance. These cells have the aspect of tumor cells also and show frequent mitoses.

Diagnosis by Dr. Stout: *Squamous cell Epithelioma of Gum of Mandible following Squamous Cell Epithelioma of Lower Lip; Fibroscaroma (?) of Gum of Mandible; Radium Necrosis of Gum of Mandible.*

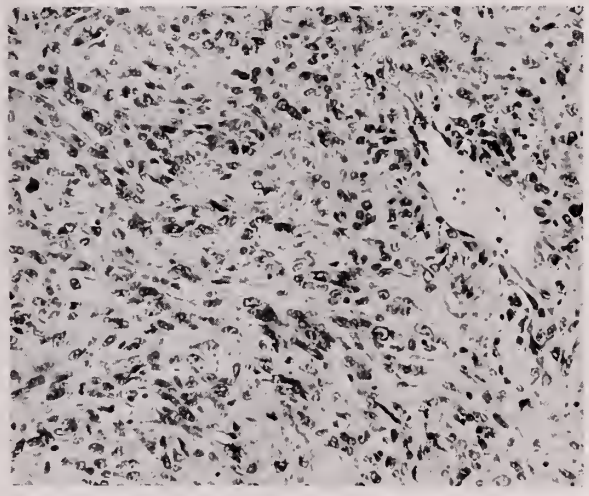

FIG. 9. (Case 11.)—Radiation granuloma of gum of mandible simulating fibrosarcoma. × 150.

DISCUSSION OF CASE 11

Dr. A. P. Stout: Case 11 is one of very special interest, I think, and illustrates a number of biological phenomena. In the first

place this lesion began as a squamous cell epithelioma of the vestibule and gum. Epitheliomas of the gums are difficult to treat by radiotherapy because of the proximity to bone. If they receive too much irradiation it is easy to cause necrosis of bone, and if this occurs osteomyelitis and sequestration follow. Hence, our practice has been to treat gum epitheliomas by surgery. Now to take up what has been going on in this case. It is apparent that the epithelioma has not been cured. Not only has lymph node metastasis been proved but there is persisting epithelioma in our sections. Most of the section is taken up by a lesion which looks like a second and different form of malignant neoplasm springing up from the gum. We have encountered this phenomenon a number of times in cases like this where the patient has had an epithelioma treated by irradiation. As far I know, in spite of the resemblance to a malignant sarcoma, these associated growths have not behaved like malignant neoplasms. They have grown exuberantly like granulomas and sometimes recurred after attempted excision but have not otherwise displayed any malignant characteristics. My opinion is that this lesion is not a true tumor but a biological reaction induced by irradiation.

Dr. Charles Phillips, Temple : I sent a granulomatous process to Dr. Ewing for a decision and he used the term aggressive. This picture (Case 11) reminds me of that. I don't know what he meant.

Dr. A. P. Stout: I imagine he had in mind a process very similar to what I described. I do not know if he ever saw a case that behaved like a malignant tumor. In my experience these lesions grow rapidly and make a mass that projects in tumor-like fashion and may extend deeply into the underlying tissue in an aggressive fashion and still not be a true malignant tumor. What was Dr. Ewing's prognosis?

Dr. Phillips: He considered it a benign process and said not to destroy it. We considered it malignant.

Dr. A. P. Stout: I think that the first time you encounter this type of lesion you are inclined to believe it is malignant because histologically it looks malignant.

CASE 12

History (presented by H. J. Schattenberg, M. D., San Antonio), Slide No. 12, Path. No. 20898.—P., a white man, age 28, entered the hospital complaining of dizziness. Upon examination, a small reddish raised tumor mass of the skin was noted on the chest wall between the ribs, and similar tumor masses were noted on the scalp. A biopsy was done of the mass on the chest. The patient became progressively worse and died four months after admission to the hospital. An autopsy showed eight tumor masses, averaging 1.5 cm. in diameter, in the cortex of the brain. These were very red, soft and hemorrhagic. No similar tumor masses were noted in any other organs except the heart, which showed four tumor masses averaging from 1 to 2 cm. in diameter in the left ventricular wall. The sections presented are from the brain and heart.

Microscopic Description.—The lesions from the heart are similar. They show groups of tumor cells which are for the most part spindle-shaped. They are arranged in cords which tend to interlace and the individual cells vary very greatly in relative size. The growth is not vascular and no definite intracellular pigment can be identified.

Diagnosis, by Dr. Stout: *Malignant Melanoma (?) of Lateral Costal Region with Metastases to Scalp, Brain and Heart.*

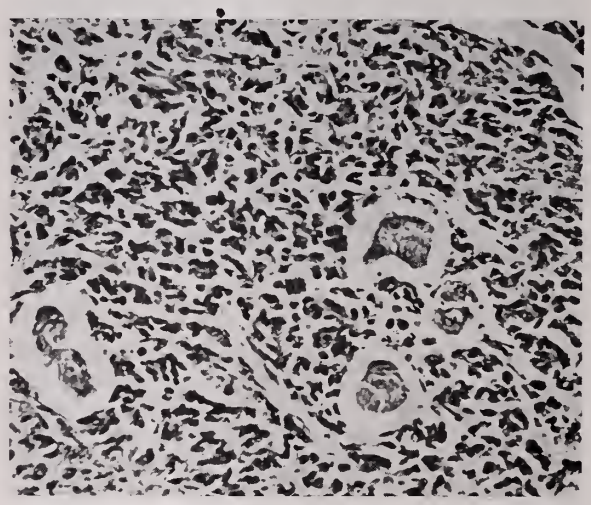

FIG. 10. (Case 12.)—Metastatic malignant melanoma? in heart muscle. × 150.

DISCUSSION OF CASE 12

Dr. A. P. Stout: Case 12 is one, I think, of very great interest also, although it is extremely difficult to diagnose. I am going to suggest a diagnosis but I do not feel at all confident about my suggestion and I am perfectly willing to be proved wrong. I understand that the diagnosis of Kaposi's disease has been suggested. You know, of course, that Kaposi's disease can have visceral manifestations. Although it usually starts in the skin of the lower extremities, it may begin anywhere on the body surface. My experience with visceral Kaposi's disease is not extensive but in all the cases I have seen, and in reported cases, the histology of the visceral lesions have been exactly like those found in the skin. Basically, there must always be capillaries which often tend to anastomose freely and a sort of fibroblastic tissue which at times resembles a malignant fibrosarcoma. The lesions in this case are described as being grossly hemorrhagic and quite vascular but I cannot see many vessels in our sections. Moreover, the cells do not look like fibroblasts. I cannot persuade myself that this is an example of Kaposi's dis-

ease. If this diagnosis is rejected, the only one I can think of which will fit the clinical and histological picture is malignant melanoma. The solitary lesion in the skin of the chest could be the primary site and the other lesions metastases. We know that malignant melanoma cells can take a spindle form and that there may be no evidence of melanin formation by them. The rather bizarre distribution of the metastatic lesions is frequently seen with melanomas. I have therefore arrived at this diagnosis but, as previously stated, I do not insist upon it.

The treatment of Kaposi's disease by irradiation of the lesions will usually cause them to disappear with small doses but this has no effect upon the progress of the disease. In the great majority of instances, the lesions in the skin will disappear spontaneously so that the use of radiation only hastens the process. This may comfort the patient's mind but the disease itself, whatever it may be, is incurable. The victims do not always die of the visceral lesions which may develop only after a period of years so that the patient may die of old age first.

So far as I am aware, I do not know of any case of malignant melanoma which has been cured by irradiation. In general, it is a very resistant growth. Diminution in size may occur but I know of no case in which cure has been effected. There have been some reported cures but not, I think, from large clinics where reports are closely studied. It is worth while to remember that there are three forms of malignant melanoma which are much less malignant than the usual form. One of them is the malignant melanoma that occurs before the age of puberty. Dr. George Pack has told me that at the Memorial Hospital in New York there are no records of metastases occurring in the melanomas of young children. Our own experience confirms this. We have seen just one case with metastases. This occurred in the deltoid region of an 8 year old girl and metastasized to the cervical and axillary lymph nodes. In spite of delay in removing the metastatic nodes, the girl has married and remains clinically well twelve years after removal of the primary tumor.[16] None of our other cases in young children have metastasized.

The second group includes the malignant melanomas which spread intradermally without deep penetration. These are sometimes called malignant freckles. We have observed several of these patients who have lived well past five years without clinical evidence of disease and one patient with the lesion on the cheek is still alive twenty-four years after the growth was first excised. There is still local persistence in spite of repeated excisions and skin grafting but no evidence of metastasis.

The third group of less malignant melanomas are the subungual tumors. Metastasis is less frequent than the average when the lesion develops in this site. Surgery is the only form of treatment which holds a chance of success, and excision should include 2 cm. of clinically uninvolved tissue all around the lesion. There is a difference of opinion as to whether or not the regional lymph nodes should be removed. I can say that, excluding children, all of the patients who had clinical evidence of lymph node involvement have died. We usually remove them, however, especially in the cases that show no evidence of metastasis because we like to feel that the patient may have a slightly better chance of survival by the possible removal of occult metastases. But the malignant melanomas also metastasize early through the blood stream. If that has already occurred before removal of the primary tumor, nothing can be done about it.

I should like to say a word about the treatment of pigmented moles because it has a bearing upon this subject. There is a difference of opinion between surgeons and dermatologists about the way these lesions should be handled. It is a common practice for dermatologists throughout the country to remove them by electro-coagulation, or some similar process. We know from experience that at least 25 per cent of malignant melanomas of the skin develop in pre-existing pigmented moles, and that in a goodly proportion of them the mole was traumatized beforehand by patient or doctor. We feel therefore that any method of removing a pigmented mole which traumatises it and fails to remove all of it, is a potentially hazardous procedure. Only surgical excision can guarantee to remove all of the mole cells, and we believe that that is the only method which should be used. What moles ought to be removed? We feel that a flat mole does not get traumatized and need not be touched. There are many elevated moles in situations where they are not subject to trauma and these also we let alone. But we do advise the removal of elevated moles in situations where they are frequently traumatized or irritated. The excision should be carried out by a surgeon who will go wide of the mole and who understands the principles of plastic repair so as to avoid unsightly scarring.

CASE 13

History (presented by H. J. Schattenberg, M. D., San Antonio), Slide No. 13, Path. No. 21634.—S., a male, age 59, had a firm, hard tumor mass, 5 cm. in

[16]Webster, J. P. Stevenson, T. W., and Stout, A. P.: The Surgical Treatment of Malignant Melanomas of the Skin, Clin. North America, 24:319-339 (April) 1944.

diameter, in the buttocks, firmly attached but movable, which was removed surgically. The pathologist warned that the tumor tissue extended to the borders of the excision and that recurrence must be expected. The patient returned eight months later with a massive local recurrence, which with most of the gluteal muscles, was surgically removed. An x-ray examination did not show any bone involvement. Fifteen months after his first admission, the patient re-entered the hospital, at which time chest roentgenograms showed massive metastases. The patient died shortly after his admission. No autopsy was performed.

Microscopic Description.—The sections show a tumor which has a very peculiar and confusing morphology. Its cells vary from rounded through stellate to spindle-shaped. They have a peculiar arrangement. In a few places they form fairly solid masses surrounding blood vessels but in most other areas they surround dense, solid masses of collagen. They may possibly represent osteoid formation, but since the cells are not included within the collagenous cords but only surround them, this seems questionable. There are mitoses among the tumor cells and the growth infiltrates and is not encapsulated. No definite epithelial formations are identified.

Diagnosis, by Dr. Stout: *Undiagnosed Tumor of Gluteal Region.*

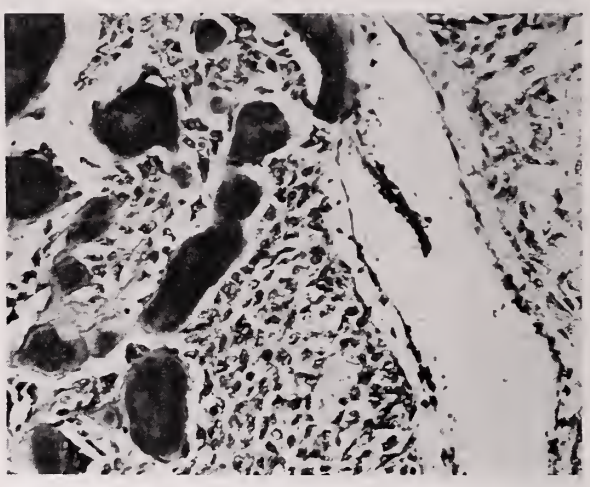

Fig. 11. (Case 13.)—Undiagnosed tumor of gluteal region. × 150.

DISCUSSION OF CASE 13

Dr. A. P. Stout: The identification of this neoplasm presents very great difficulty, especially in view of the definite evidence of metastasis and the fatal outcome. It does not seem possible to consider it an osteogenic sarcoma occurring away from bone, although this is suggested to some extent by the peculiar morphology. One also has to envisage the diagnoses of mixed tumor and sweat gland carcinoma. Although the arrangement of fibres and cells is reminiscent of these two tumor types, I do not feel that I can recall ever having seen or read of any examples exactly like this, and I therefore feel unable to include this tumor with either of those two groups. One might also think of the cylindromatous type of basal cell epithelioma, but it seems to me that this is even less likely than the three diagnoses already suggested. Therefore, I find myself completely baffled by this neoplasm and am forced to leave it undiagnosed.

CASE 14

History (presented by H. J. Schattenberg, M. D., San Antonio), Slide No. 14, Path. No. 22783.—H., a white female, age 55, complained of severe pain in the left upper abdomen, and had distention, dyspnea and a severe cough. The spleen was enlarged, extending down to the pelvis. A blood count showed 4,800,000 red blood cells, 21,000 leukocytes with 91 per cent polymorphonuclears (stab forms, 21 per cent; segmented forms, 70 per cent). There were nucleated red cells and myelocytes in the circulation. Splenectomy was performed. The spleen weighed 900 grams; it was adhered to the stomach, colon, diaphragm, omentum, and posteriorly to the kidney region. The patient died about five months after the operation. No autopsy was done.

Microscopic Description.—Sections show that the architecture of the spleen is basically preserved, although the splenic corpuscles are extremely small and widely spaced. The pulp, both in respect to the sinuses and the capillaries, is enlarged because of the accumulation in it of a great variety of cells among which there can be recognized nucleated red cells and various immature white cells, including myelocytes and myeloblasts. There is practically no fibrosis, and there is a good deal of scattered blood pigment.

Diagnosis, by Dr. Stout: *Myeloid Leukemia (?) of Spleen.*

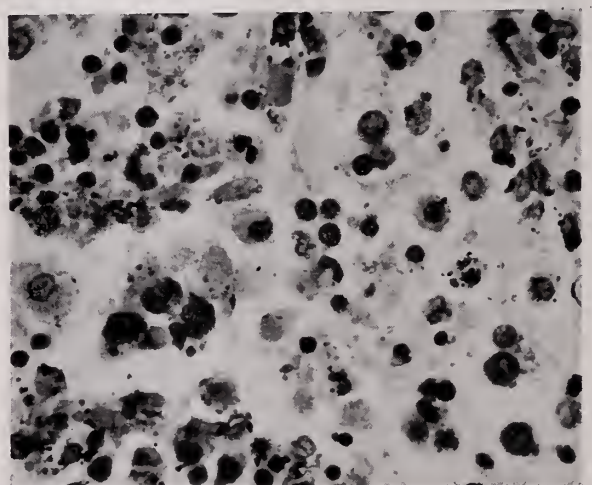

Fig. 12. (Case 14.)—Myeloid leukemia. Bizarre cells in spleen. × 637.5.

DISCUSSION OF CASE 14

Dr. A. P. Stout: I think we are handicapped in the diagnosis of this case by a lack of knowledge of what is going on in the bone marrow. Dr. B. F. Stout tells me that a bone marrow biopsy was sent to Dr. Kracke, who was unable to make a diagnosis of leukemia. I should want to see roentgenograms of the bone marrow in order to determine whether or not they showed osteosclerosis because there is evidence of immature white

blood cells in the spleen. This can occur in at least two different lesions. It can occur in myeloid leukemia in which there is secondary osteosclerosis and also in primary osteosclerosis with extramedullary red and white blood cell formation. Immature forms may be found without necessarily any leukemia being present at all. It does not seem possible to tell which of these two lesions has been responsible for the changes in the spleen. The removal of the spleen in either of these two conditions seems to me an inadvisable procedure because in both the bone marrow is sclerotic and by removing the spleen, one removes the principal site of extramedullary activity which should result in hastening the time of death. I consulted Dr. Maurice Richter of the Postgraduate Hospital in New York, who knows a great deal more about these diseases than I do, and he felt the same way as I do. We have seen somewhat similar cases in which the primary lesion was known, and in all the spleen looked just the same as in this. Radiotherapy in these cases is contraindicated for the same reason as surgical removal.

Dr. Charles Phillips, Temple: What was the blood picture in the splenic case?

Dr. A. P. Stout: Everything that I know about the case is included in the history of the case which has been presented.

CASE 15

History (presented by Col. A. H. Thomas, Brooke General Hospital, Fort Sam Houston), Slide No. 15, Path. No. 8C29644.—A white woman, age 21 years, had had a slow-growing, painless tumor of the thyroid for the past twelve months. The basal metabolic rate was +12 per cent. At operation an encapsulated mass of the isthmus, measuring 3.0 by 2.5 by 2.5 cm., was excised, and on section it consisted of coarse papillary light gray tissue (formalin fixed). There were nodules of yellowish-gray tissue which appeared partially necrotic.

Microscopic Description.—The section shows a tumor which replaces all of the thyroid tissue in the section except for a thin strip along one border. The tumor is composed of enlarged acini, the majority of which have papillary ingrowths into them composed of slender cores of vascular fibrous tissue clothed with cuboidal or columnar tumor cells which are relatively well differentiated. A few of the acini are simple, rounded, and have colloid filling their lumens. A few of the papillary processes have calcospherites in them. At its margin the tumor is separated from the thyroid by an apparent capsule of fibrous tissue.

Diagnosis, by Dr. Stout: *Carcinoma (Papillary Type) of Thyroid.*

DISCUSSION OF CASE 15

Dr. A. P. Stout: There may be some doubt about the justification for including this case with the thyroid carcinomas and I believe it will be of interest if, before discussing it, I quote some of the statistics regarding thyroid carcinoma in our institution because I think that here in Texas you do not have an opportunity to see many thyroid carcinomas, since it is not a region where goiter is prevalent. These statistics have been compiled by my associate, Dr. V. K. Frantz, who has made a special study of thyroid cancer.

During the period January 1, 1924, through April 30, 1944, 4,671 thyroid cases coming to the Presbyterian Hospital, New York, have been examined microscopically, and among these there were 117 cases of cancer (2.5 per cent). In addition, there have been 34 other cases of carcinoma of aberrant thyroid tissue, 33 lateral and 1 median. The 117 cases have been divided into three groups, according to degree of differentiation and relative malignancy. The first group of 78 cases includes the papillary, adenoma malignum and Hürthle cell tumors; the second group of median degree of differentiation has 22 cases and the third most malignant group, which

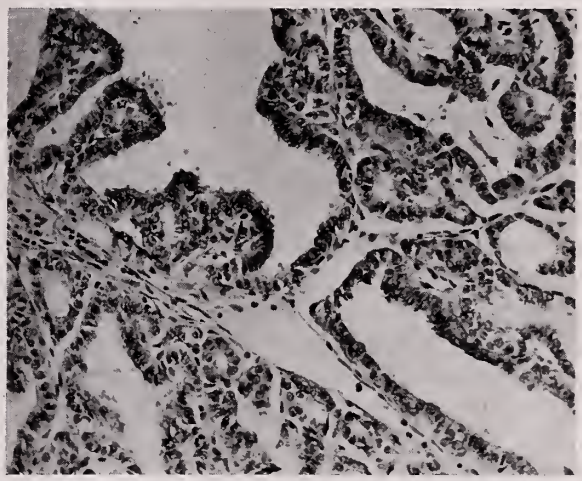

FIG. 13. (Case 15.)—Papillary carcinoma of thyroid giand. × 150.

includes the giant cell carcinomas, 17 cases. Only 78 of these cases were seen more than five years ago. The results in these are as follows: Group 1, 50 cases, 11 dead; Group 2, 20 cases, 12 dead; Group 3, 8 cases, all dead. Of the 50 cases in Group 1, 19 were papillary tumors and of these 4 patients died, 3 of them with lung metastases and 1 of an intercurrent gallbladder carcinoma. I give these figures of the papillary tumors because I believe that Case 15 is an example of a papillary carcinoma.

The papillary carcinomas are therefore definitely malignant tumors with the possibility of metastasis, although this is not a frequent occurrence. The acidophilic cell carcinomas of the thyroid are known as Hürthle cell tumors in this country because that is the name Dr. Ewing attached to them. We have never been able to find any reference to these cells in Hürtles papers. In Europe they are called Askanazy cells or

oncocytes. A great deal of discussion has arisen about the tumors of the lateral aberrant thyroid.[17] A very recent paper by Clay and Blackman[18] of the Johns Hopkins Hospital denies that there is any such thing as a primary carcinoma of the lateral thyroid and assures us that they are all metastases from primary lesions in the thyroid itself. We are unwilling to accept this viewpoint, in spite of the fact that in 20 of our 33 cases there was also a tumor in the thyroid gland itself. But if it is true, then the metastasis rate of papillary thyroid tumors is much higher than the figures I have quoted, for 19 of our 33 lateral thyroid carcinomas were papillary in type. Of these 19 patients, 4 have died: one had pulmonary metastases and the three others had local recurrence of cancer. We have also had one case of median aberrant thyroid carcinoma invading the hyoid bone.

In the treatment of thyroid carcinoma we rely upon surgery. Because papillary carcinomas are reputed to be radiosensitive, we formerly gave all such cases postoperative radiotherapy but we have abandoned this practice and we believe that most of them are not as sensitive as was formerly supposed. Our results from all kinds of therapy in the third or undifferentiated group have been uniformly bad. A few years ago, Shields Warren told me that in two cases of giant cell carcinoma of the thyroid enormous doses of x-rays had arrested the progress of the disease. I understand that now he is not as hopeful as formerly. It may be of interest that Dr. Frantz and some others have tried the effect of the administration of radioactive iodine in cases of the adenoma malignum type of thyroid carcinoma with bone metastases. It was hoped that functionally active metastases of this type would fix the radioactive iodine[19] and that selective irradiation of the metastatic cancer might result. Although the iodine was fixed in some of the metatases and its presence could be noted by the violent clicking of a Geiger counter when brought close to the lesion, the results were disappointing so far as the accomplishment of any effective treatment. This may be because insufficiently large doses have been administered. It is an enormously expensive form of treatment requiring the use of a cyclotron to produce the radioactive iodine which loses its activity within some thirty-six hours, so that it can at best have only a very limited use.

Dr. Matthews: Do you, Dr. Stout, think that tumors of the thyroid can be benign papillary adenomas or do you feel that all of them are low grade carcinomas? What are the criteria?

Dr. A. P. Stout: Yes, we recognize a benign papillary cystadenoma of the thyroid. We believe it is a rare lesion. I think that in this tumor slide of Case 15 and in other papillary carcinomas of the thyroid, most of the cells do not resemble any normal or nonneoplastic thyroid cell. I think also that the benign papillary growths do not form psammomatous bodies and do not infiltrate. We seldom make the diagnosis of benign papillary cystoadenoma.

Dr. Matthews: How much importance is put on vascular invasion?

Dr. A. P. Stout: We feel more comfortable about the diagnosis of carcinoma if we can find it, but on the other hand we are not unduly alarmed if we find blood vessel invasion in tumors of any of the endocrine glands and especially the thyroid because we have seen it a number of times in thyroids without any tumors in them. You have heard how relatively infrequent blood-borne metastases are in papillary thyroid carcinomas, yet blood vessel invasion is common. We do not demand it for the diagnosis and we don't regard it as of any real prognostic significance.

Dr. H. H. Sweet, Jr., Galveston: You said that we aren't in the goiter belt and probably didn't see these carcinomas. We see a great many, and I understand the carcinomas are independent of the goiters.

Dr. A. P. Stout: Well, I don't know whether I can answer that correction or not. I think perhaps because the Clinics in the goiter belt are known for their interest in thyroid cases that patients with thyroid carcinoma are more apt to frequent them. Judging by the reports of large groups of thyroid cancer, most of them have come from goiter regions. It is perfectly true that the relative percentage of thyroid cancer to goiter is much higher in males than in females which would seem to suggest that the relationship between goiter and thyroid cancer is not as close as was formerly supposed. I did not know that you saw many cases of thyroid cancer in Texas.

Dr. A. O. Severance, San Antonio: We worked out the statistics from the records of the Nix Hospital and found that the percentage of thyroid cancer was greater in this area than reported by other authors in other parts of the country. We had a low percentage of thyroid specimens.

[17]Frantz, V. K., Forsythe, R., Hansford, J. M., and Rogers, W. M.: Lateral Aberrant Thyroids, Ann. Surg. 115:161-183 (Feb.) 1942.

[18]Clay, R. C., and Blackman, S. S., Jr.: Lateral Aberrant Thyroid; Metastasis to Lymph Nodes from Primary Carcinoma of the Thyroid Gland, Arch. Surg. 48:223-228 (March) 1944.

[19]Keston, A. S., Ball, R. P., Frantz, V. K., and Palmer, W. W.: Storage of Radioactive Iodine in a Metastasis from Thyroid Carcinoma, Science 95:362-363 (April 3) 1942.

Dr. A. P. Stout: But not in relationship to the population. Did you discuss this with Dr. Warren on his recent visit?

Dr. Severance: I'm afraid I didn't.

Dr. J. J. Andujar, Fort Worth: That is an interesting point. We see many thyroid cases. We found our cases the same as Dr. Severance found—that there was an unusually high percentage of cancer of the thyroid. They are lower than in the Great Lakes region, but there is a mighty high proportion to the specimens we receive.

Dr. A. P. Stout: That is very interesting. I am glad to have learned these facts.

Dr. S. A. Wallace: Houston: I should like to revert to thyroid tumors, from the standpoint of prognosis. It seems to me that if 19 have been removed and only 2 metastasized, they behave like a papilloma. For instance, the following implication: If that is put down on a man's army record as carcinoma, he is discharged. The same thing would apply from a clinician's belief in telling his patients the full truth—and here is a patient believing he has a carcinoma and the chances are pretty slim. Some years ago, I learned the other way and called these papillomas.

Dr. A. P. Stout: May I ask what you are going to do when they metastasize? You really haven't got any criteria which will enable you to distinguish the metastasizing from the non-metastasizing. The same thing applies, of course, to the adenoma malignum, and the so-called benign metastasizing goiter where no primary tumor in the thyroid is discovered and yet there are metastases in bone. Well, I have no adequate defense for classifying them as cancers. Most of them don't behave like cancer and we never tell the patient with one of these differentiated tumors that he has cancer of the thyroid because there is such a good chance of cure by surgical removal. It would be cruel to poison their minds with the idea. As for discharge and pension, I think there will not be enough cases of this sort in the army to make much difference in the enormous pension roll.

Col. A. C. Thomas, Brooke General Hospital, Fort Sam Houston: It might be of interest to say what did happen. We gave this a non-malignant diagnosis, and in reporting it we hedged. Then we talked to this patient's doctor. The patient doesn't know what the situation is, and neither does her husband. So far, she has gotten along very nicely. We thought that they got it all out by surgery.

Lt. Col. DeCoursey, Brooke General Hospital, Fort Sam Houston: Would you please repeat the number of papillary benign tumors of the thyroid in relation to the number of papillary malignant tumors?

Dr. A. P. Stout: I didn't give it. I said that the number we have classified as benign is smaller than the number we classified as malignant.*

CASE 16

History (presented by Col. A. H. Thomas, Brooke General Hospital, Fort Sam Houston), Slide No. 16, Path. No. 8C44644.—A male German prisoner of war, age 31, first noticed pain in the region of the lower sternum after doing heavy lifting in 1940, and which was followed by the development of a small lump. The pain subsided. During the next two years the lump became slightly larger. In May, 1943, the patient struck his sternum on a rock as he jumped into a foxhole. The mass increased rapidly in size and became painful. A second nodule developed 4 cm. below the first, in the midline. In March, 1944, there was a slight lagging of the right chest with diminution of breath sounds. The larger mass was firm, nodular, and attached to the sternum and xiphoid process and to the overlying skin. There was a bluish-red discoloration over part of it. An x-ray study showed changes compatible with osteogenic sarcoma of sternum and xiphoid process. There was no apparent involvement of the lungs or remainder of the thoracic cage. The lymph nodes of the right supraclavicular right axillary groups were enlarged and firm. A biopsy was done on an axillary node. The mass decreased in size after irradiation, and the pain diminished.

Microscopic Description.—Sections from the axillary nodule show that it is a lymph node almost completely replaced by a tumor. The tumor varies greatly in different regions, so that an adequate description is very difficult. An outstanding feature is the large amount of blood that is intermingled with the tumor cells. In some places the cells form almost solid membranes so that one can obtain very little conception of differentiation. In other areas, however, the tumor cells are arranged in vaguely anastomosing strands with spaces containing red blood cells between them. Some of the spaces are quite large, while others are small, closely placed, and freely anastomosing.

Diagnosis, by Dr. Stout: *Hemangio-endothelioma (?) of Axillary Lymph Gland following Hemangio-endothelioma (?) of Sternal Region.*

DISCUSSION OF CASE 16

Dr. A. P. Stout: I was much intrigued by this case and I regret that no silver reticulin stains are available because this might have permitted a positive diagnosis. The decision has to be made as to whether the blood-filled spaces in the tumor are due to hemorrhage or whether they are real vascular spaces lined by malignant endothelial cells. If it is not a malignant hemangio-endothelioma then we have to envisage the possibility of reticulum cell sarcoma and also, since it involved bone, of Ewing's tumor. It is not the ordinary undifferentiated small cell form of Ewing's tumor so that if it did arise in bone marrow it would have to be the reticulum cell variety. It may be because I am particularly interested in vascular tumors but I would like to

*The numbers are papillary carcinomas 37, benign papillary cystoadenomas 22.

believe that this is a malignant hemangio-endothelioma.

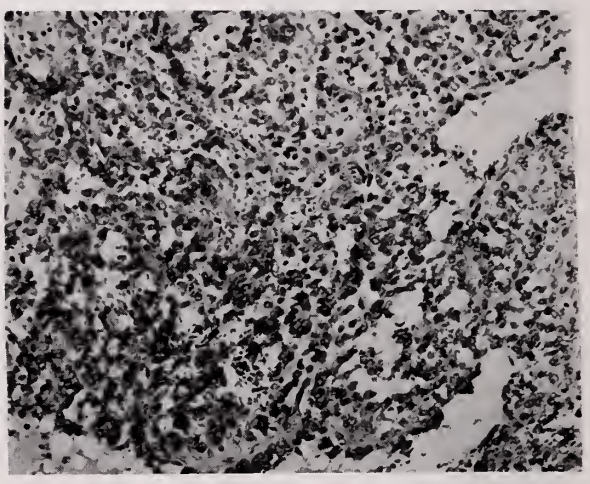

FIG. 14. (Case 16.)—Hemangio-endothlioma of sternal region. × 150.

CASE 17

History (presented by the Army), Slide No. 17, Path. No. S22244.—A white female, age 29, was admitted to the hospital January 23, 1944, stating that thirty days before, she had had a lower cuspid extraction, following which there was pain and swelling of the soft tissues of the right side of the neck and face. It subsided for about two weeks and then the right cheek and the eyelids began to swell, with pain in the eye which varied from sharp to dull. At the time of admission there was right ocular proptosis with marked edema of the upper and lower eyelids and glabella, and moderate swelling of the right cheek. At operation it was found that nearly all the swelling of the face and eye was due to infiltration of a granular light gray, partially necrotic mass of tumor tissue. The eye was compressed but not invaded. The tumor had infiltrated the anterior wall and the roof of the right maxillary sinus. There was a slight involvement of the medial wall. The tumor extended medial and posterior to the eye. The right external carotid artery was ligated, the eye enucleated and a large portion of the tumor excised.

Microscopic Description.—The skin and subcutaneous tissue are extensively and completely infiltrated by a tumor composed of thick masses and cords of rounded or polygonal cells without any differentiating features. Where the cells are well preserved, they are rather small, but in most areas they are swollen and vacuolated so that sometimes they reach a large size. It is not possible to tell to what this vacuolation of the cytoplasm is due, but it is quite possibly a phenomenon of degeneration. In almost all places where the tumor appears there is a large, heavy infiltration of polymorphonuclear leukocytes.

Diagnosis, by Dr. Stout: *Carcinoma of Maxillary Sinus.*

DISCUSSION OF CASE 17

Dr. A. P. Stout: Case 17 is an example of a malignant tumor of the maxillary sinus. These are very discouraging tumors, for the more one sees of them the more one realizes what an enormous variety of histological appearances the tumors of the sinuses and nasal cavity can assume. Since it is entirely undifferentiated, I think it must be classified as a carcinoma and not as a sarcoma. The treatment of a carcinoma of the maxillary sinus in the late stage when it has invaded the skin is a hopeless undertaking, and I have never known a case salvaged by any form of therapy. In the earlier stages when the tumor is still confined within the sinus, it has been attacked by several different methods, none of them very successful for undifferentiated carcinomas such as this. One may depend upon surgery alone by doing a very radical resection of the entire maxillary sinus and its bony walls. Or a partial resection may be done supplemented by irradiation with radium or x-rays. The malignant

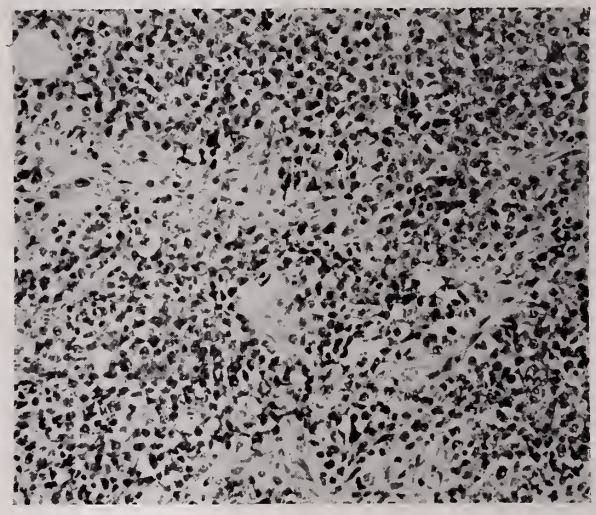

FIG. 15. (Case 17.)—Carcinoma of maxillary sinus. × 150.

tumors of this region which give the best results are the papillary carcinomas but unfortunately these are very rare. I shall not attempt to describe and name all of the different histological tumor types that may be encountered in this region for I do not have them clearly in my own mind and I have felt that an equal confusion has existed in the minds of most authors who have published descriptions of them.

Dr. Severance: I would like Dr. Stout to tell us if he differentiates the Schminke tumor from a transitional cell carcinoma and from a squamous cell epithelioma.

Dr. A. P. Stout: I think the term transitional cell carcinoma or epithelioma is intended to mean an epithelioma that arises from the transitional type of mucous membrane. As I have studied the epitheliomas of the different parts of the oral and nasal cavities and the sinuses I have found it impossible to segregate them all into pavement cell and transitional cell epitheliomas, so that it would seem to me easier to consider them

all on a basis of differentiation of the tumor in respect to the mucous membrane from which it arises and so I use the terms well differentiated, poorly differentiated and undifferentiated for the epitheliomas of all those regions. I don't suppose it is terribly important what names are used but I get less confused if I stick to the one name, epithelioma, modified by the three degrees of differentiation I have indicated for all of them.

Now in regard to the Regaud-Schminke lymphoepithelioma, it is difficult to differentiate from the undifferentiated epithelioma, particularly in the nasopharynx, but the criteria which I use I learned at the Curie Institute in Paris where Regaud was Chief for many years. The lymphoepithelioma has cords of completely undifferentiated cells, which are probably epithelial, among which lymphocytes are intermingled. The undifferentiated epithelioma has cords of undifferentiated epithelial cells without any intermingled lymphocytes. If the cords of undifferentiated cells are not surrounded by and intermingled with lymphocytes it should not be called a lymphoepithelioma.

CASE 18

History (presented by H. J. Schattenberg, M. D., San Antonio), Slide No. 18, Path. No. 23490.—L., a white woman, age 36, presented herself, complaining of disturbance in micturition. Urological examination showed a large mass surrounding the middle third of the urethra. She had had pain in this region for the last two months. At operation a

FIG. 16. (Case 18.)—Inflammatory fibrosis of female urethra simulating neoplasm. × 150.

tumor mass 3 by 6 cm. was removed, through the center of which the urinary channel, or former urethra, passed. The wall of the channel was soft and necrotic. The patient made an uneventful recovery.

Microscopic Description.—Sections show that the mass is some 13 mm. in thickness. It is enclosed within a capsule on one surface, while the opposite surface, which presumably was around the lumen of the urethra, consists of degenerated tissue heavily infiltrated with polymorphonuclear leukocytes. Between these two extremes is a peculiar loose-textured tissue made up of short strands of spindle-shaped cells accompanied by connective tissue fibres which tend to interlace and which stand away one from the other as if the tissues were edematous. All of the tissues are infiltrated with polymorphonuclear leukocytes in varying concentration. The cells of the growth are spindle-shaped, and some are rather large and plump, although the majority are smaller, thinner, and more compact. They appear of adult type. It is impossible for me in this preparation to determine whether they are fibroblasts or smooth muscle cells, although I am inclined to the belief that they are more likely to be fibroblastic in nature.

A trichrome stain of this tissue shows that there are remnants of the urethral smooth muscle scattered through this mass at wide intervals, but that there are no smooth muscle fibres produced by the newly formed cells themselves.

Diagnosis, by Dr. Stout: *Hypertrophy (?) of Female Urethra.*

DISCUSSION OF CASE 18

Dr. A. P. Stout: I must say that this tumor puzzled me tremendously. I don't recall having seen anything like it involving the female urethra, and I think the decision has to be made as to whether we are dealing with a neoplasm or inflammatory fibrosis and thickening. Since the lesion does not resemble any neoplasm with which I am familiar and because of the fact that the proliferation has thickened the urethral wall circumferentially, I came to the opinion that it is not a neoplasm but a fibrous thickening.

Has anyone seen a lesion similar to that of the urethra? What is your opinion of this case?

Dr. Henry Hartman, San Antonio: That tumor growth was definitely encapsulated. The surgeon shelled it out. The patient had a perfect functional result but what I would bring out is that it is so definitely encapsulated. We wondered about the question that was brought up, and especially that some thought of it as granulation tissue. Now we would say from what we see of the specimen as well as what the surgeon in the case told us at the time of operation, and since, that it could not be granulation tissue. I can well emphasize that this patient has a normal functioning urethra now after a period of from five to six weeks.

Dr. A. P. Stout: Then that space in the section, Dr. Hartman, is not the urethral lumen with its epithelium destroyed. Was it an abscess?

Dr. Hartman: No, sir. The tumor did not have an appearance of circumscribed inflammation.

Dr. A. P. Stout: Have you ever seen anything like this before, Dr. Hartman?

Dr. Hartman: No, sir.*

CASE 19

History (presented by A. O. Severance, M. D., San Antonio), Slide No. 19, Path. No. 12N66.—A woman, age 47, gave a chief complaint of pelvic pressure (which lasted for three or four weeks), bladder frequency, and pelvic pain. X-ray treatment was given in 1935 to stop bleeding at menstrual periods, and deep x-ray was given in July, 1943, for a very large abdominal tumor, which disappeared suddenly after the x-ray therapy (ruptured membrane of a cyst?). The patient had had a coronary occlusion three years before. For five months, her periods had been regular. Physical examination showed a tumor mass in the pelvis and lower abdomen, above and left of the uterus. On January 24, 1944, salpingo-oophorectomy (bilateral) and supravaginal hysterectomy were done. The diagnosis before the operation was granulosa cell tumor of ovary, and at operation the diagnosis was adenocarcinoma of the left ovary. The incision healed immediately after the operation.

Microscopic Description.—The slide has on it two different pieces of tissue, both of which are reputed to come from the ovary. One of the pieces is made up of a glandular carcinoma in which there are multiple closely placed tubes lined by tall cylindrical cells which sometimes are folded into the lumen, making papillary projections. It is not possible to determine from the hematoxylin and eosin section whether or not the cells have secreted a mucoid material. A mucicarmine stain shows its presence in some of the differentiated cells. In a few areas the tumor cells show squamous metaplasia with the formation of a tiny structure resembling a pearl in one area. At one end of this piece of tissue the glandular tumor cells seem to change their characteristics and to assume the appearance of the tumor in the other piece of tissue. In this second piece the tumor cells are for the most part rounded, and they form large, thick cords which are set in a fibrous stroma. In places these cords of tumor cells form spaces which somewhat suggest rosettes, although they are for the most part probably due to cell degeneration.

Diagnosis, by Dr. Stout: *Carcinoma of the Ovary.*

DISCUSSION OF CASE 19

Dr. A. P. Stout: The decision in this case has to be made as to whether we are dealing with one or two tumors of the ovary, and if it is one tumor—is it a glandular carcinoma that in some parts loses its differentiation or ability to form gland tubules and becomes undifferentiated or is it a granulosa cell tumor which in places has developed glandular differentiation. I reject the possibility of two malignant tumors developing simultaneously in the same ovary. Such cases almost always prove to be a single tumor showing metaplasia. We must decide, therefore, which part of this tumor reveals its true nature, the glandular or the non-glandular which in places suggests a granulosa cell neoplasm. My own experience and my consultation of publications on the subject lead me to believe that it is impossible for granulosa cell tumors to form tubules. If this is correct we have no choice but to reach the conclusion that this is a glandular carcinoma, some portions of which are undifferentiated. Our experience with such undifferentiated carcinomas of the ovary has been almost uniformly bad, no matter what form of treatment has been used. I believe that they are extremely malignant tumors. They frequently involve the peritoneum and the opposite ovary and easily metastasize through the lymphatics and blood vessels. The treatment has been surgical removal of one or both ovaries followed by radiotherapy both prophylactically and for metastases when they appear, but the results have been the same: the patients have all died.

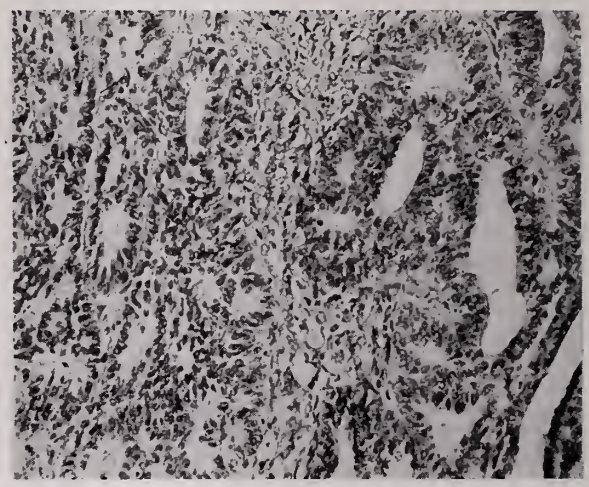

FIG. 17. (Case 19).—Carcinoma of the ovary. An area of good differentiation at the right and poor differentiation in the center. × 150.

CASE 20

History (presented by J. M. Moore, M. D., San Antonio), Slide No. 20, Path. No. A3809.—I. B., a male Mexican, age 39, for the past two months had vomited all food taken, and had lost 20 pounds in weight. The blood count was essentially normal, and the urine contained +1 albumin and +3 pus. X-ray study of the chest revealed a large tumor mass in the left apex region of the apical and perivertebral branches of the main bronchus. The operative record showed an apical tumor the size of a grapefruit attached by a small pedicle to the upper pole of the lung, which was removed. No other pathologic change was noted.

Microscopic Description.—The sections show a tumor made up of cords of very large, pale cells with small, centrally placed nuclei and voluminous cytoplasm which is basically granular but has large, irregular, empty spaces in it which no doubt were filled with glycogen. The cords of cells are separated by slender bands of fibrous tissue bearing capillaries. There does not seem to be any tendency on the part of the cells to form tubules or papillary structures. A good deal of the tumor is necrotic.

Diagnosis, by Dr. Stout: *Hypernephroma of Pleura Following Hypernephroma of Kidney (?).*

*NOTE BY DR. A. P. STOUT: The description furnished with Case 18 states that ". . . A tumor mass 3 by 6 cm. was removed, the urinary channel or former urethra running through its center." Dr. Hartman's remarks contradict this statement. However, no matter whether the urethra ran through it or did not run through it, I am still of the opinion that the lesion is inflammatory rather than neoplastic.

DISCUSSION OF CASE 20

Dr. A. P. Stout: This case, I believe, has the histological characteristics of a hypernephroid tumor and it is difficult for me to suggest any other source. These tumors need not necessarily be primary in the kidney.

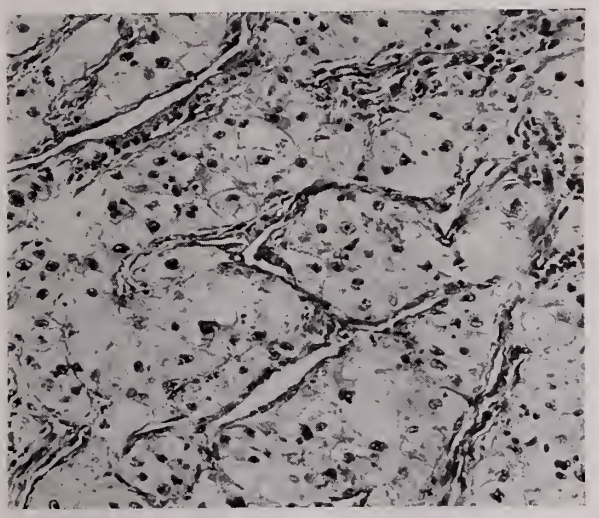

FIG. 18. (Case 20.)—Hypernephroid carcinoma metastatic in the pleura. × 150.

They may grow in the retroperitoneal region developing from misplaced kidney blastema. A solitary metastasis such as this is not an uncommon event in cases where the primary neoplasm is silent and unsuspected. It may be of interest to say a few words about hypernephroid carcinomas of the kidney. We try to divide them into two histological groups because the prognosis of the two groups is quite different. If the tumor tends to make gland-like spaces or tubes with or without papillary projections into them, we find that the number of cases with blood vessel invasion is high. In the other form no tubes are made but the cells are arranged in cords separated only by a vascular strand of fibrous tissue. The majority of cases cured by nephrectomy will be found to have this nontubular arrangement. Of course, the tumors with this morphology are malignant and can metastasize as this Case 20 proves. Our Urological Department uniformly treats the primary kidney tumors by nephrectomy, and radiotherapy of the primary growth seems to be of no value. Radiotherapy of metastases has sometimes resulted in amelioration. Occasionally we have believed it justifiable to remove a solitary metastasis of a hypernephroid tumor because of the fact that some of these patients with metastases live for many years and their condition can be ameliorated by such a procedure.

CASE 21

History (presented by J. M. Moore, M. D., San Antonio), Slide No. 21, Path. No. A3790.—T. M., a woman, age 24, born in Mexico, noticed a mass growing in her throat about four months ago. It had since grown to the size of a small egg and occluded the air passages. There was no pain or tenderness. The tumor mass displaced the left tonsil. On December 15, 1943, tonsillectomy was performed. The specimen consisted of the two tonsils, one greatly enlarged, measuring 4 cm., and the other 2 cm. in diameter. The blood count was essentially normal.

Microscopic Description.—The sections sent for the conference show that the tonsillar tissue is largely replaced by a tumor which is made up of large masses of rounded cells with hyperchromatic nuclei and frequent mitoses. It is of interest to observe that the tumor masses do not completely destroy the lymphoid tissue except in a few areas. In most places they are outlined by thin borders of lymphocytes, so that when one views the section in low magnification (x 6) it gives one the impression of very large follicles which tend to become confluent in the areas of greatest involvement.

Diagnosis, by Dr. Stout: *Lymphosarcoma (Giant Follicle Type) of Tonsil (Becoming Reticulum Cell Type).**

CASE 22

History (presented by Col. A. H. Thomas, Brooke General Hospital, Fort Sam Houston), Slide No. 22, Path. No. 8C53144.—In May, 1943, H. T. W., a man, began to have gaseous distention of the stomach with mild nausea and loss of appetite. His condition improved considerably a short time later, and he did full field duty until November, at which time he again had nausea, abdominal distention and, on several occasions, vomited. A diagnosis of gastric ulcer was made on the basis of an x-ray study. A gastric analysis showed hydrochloric acid 22 degrees. There was no response to ulcer therapy. X-ray study later led to the diagnosis of carcinoma of the stomach, and a laparotomy with resection of the lesion was done. At operation an ulcer measuring 1.5 cm. in diameter was found in the middle of the lesser curvature. There was an area of induration around it, forming a mass 5 by 3 cm., and moderately extensive adhesions to the pancreas. There was no evidence of metastasis to the liver. There was about 150 cc. of peritoneal fluid, and enlarged lymph nodes were along the lesser curvature and the left gastric artery in the omentum and above the duodenum. Some nodes measured 2 by 1 cm.; all were soft and appeared to be the result of inflammatory reaction.

Microscopic Description.—The section shows an intact mucous membrane, well provided with typical gastric glands. All the rest of the wall is extensively invaded by masses of rather small, rounded cells from two to three times the diameter of normal lymphocytes. They fill the gastric wall solidly so that hardly a trace of its various coats remain. The cells show many mitoses and apparently no tendency to form epithelial structures. At one point the base of the mucous membrane has been invaded, producing a very tiny necrosis and a superficial ulcer, the bed of which is formed by tumor tissue. Everywhere else, the tumor remains on the submucosal side of the muscularis mucosae. In several areas the tumor cells are arranged vaguely in large follicles outlined by lymphocytes.

Diagnosis, by Dr. Stout: *Lymphosarcoma (Giant Follicle Type) of Stomach.**

CASE 23

History (presented by Col. A. H. Thomas, Brooke

*EDITOR'S NOTE.—Case 21 and 22 are discussed with Case 23, and the discussion may be found following the presentation of Case 23.

General Hospital, Fort Sam Houston), Slide No. 23, Path. No. 8C29544.—A white man, age 26, first noticed a lump on the right side of his neck in October, 1943. About a month later, two smaller nodes were noticed on the same side of the neck. There were no other findings at the time. On physical examination a discrete firm gland, 1.5 cm. in diameter, was found fixed to the skin just below the angle of the right mandible, and two nodes, 1.0 cm. in diameter, just posterior to the first, were palpable. There was no other palpable lymphadenopathy. The larger gland was removed for biopsy. Later inguinal nodes, which showed no significant histological changes, were excised.

Microscopic Description.—The section shows that the node has been almost completely replaced by tumor made up of rather large rounded cells resembling those found in the germinal center of the follicle. These are collected into masses which are rather vaguely outlined by lymphocytes, producing the appearance of giant follicles. This arrangement can be appreciated only when the node is examined by very low magnification (6 x). Not all of the giant follicles are completely outlined by the lymphocytes. The lymphocytes tend to disappear toward the center and the large cells have become confluent to form a solid uninterrupted mass.

Diagnosis, by Dr. Stout: *Lymphosarcoma (Giant Follicle Type) of Cervical Lymph Gland.*

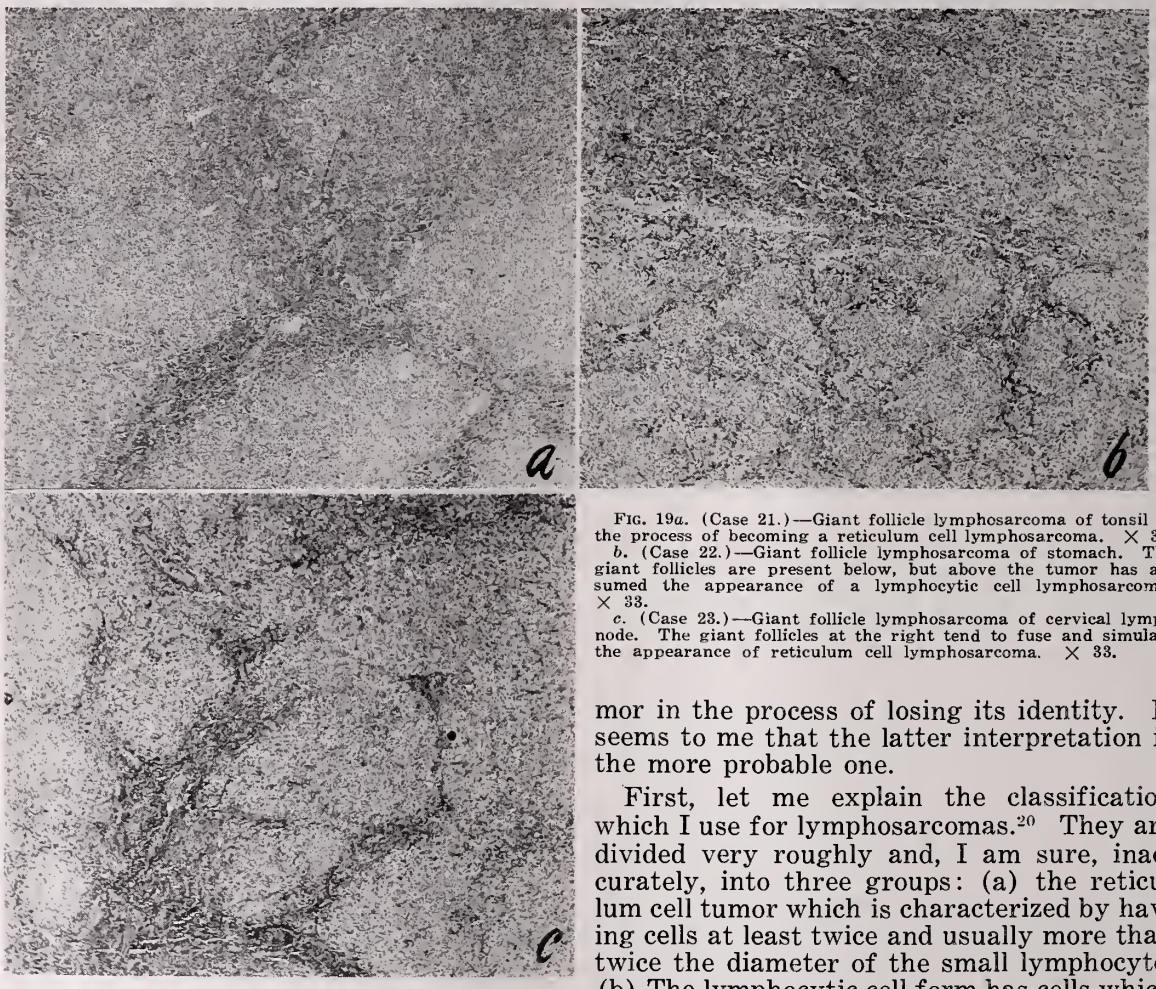

FIG. 19*a*. (Case 21.)—Giant follicle lymphosarcoma of tonsil in the process of becoming a reticulum cell lymphosarcoma. × 33.
b. (Case 22.)—Giant follicle lymphosarcoma of stomach. The giant follicles are present below, but above the tumor has assumed the appearance of a lymphocytic cell lymphosarcoma. × 33.
c. (Case 23.)—Giant follicle lymphosarcoma of cervical lymph node. The giant follicles at the right tend to fuse and simulate the appearance of reticulum cell lymphosarcoma. × 33.

DISCUSSION OF CASES 21, 22 AND 23

Dr. A. P. Stout: I think that all three of these are cases of lymphosarcoma, and it is interesting to study them together. Case 21, in which the tonsil is the site, seems to me to be a giant follicle form of lymphosarcoma in the process of changing over into the reticulum cell type. I shall explain in a moment what I mean by those terms. Case 22, I should call a giant follicle type, and I make the same diagnosis in Case 23, of the cervical lymph node. This last, however, can be interpreted in either one of two ways. It may be considered a growth of reticulum cells or it may be interpreted as a giant follicle tumor in the process of losing its identity. It seems to me that the latter interpretation is the more probable one.

First, let me explain the classification which I use for lymphosarcomas.[20] They are divided very roughly and, I am sure, inaccurately, into three groups: (a) the reticulum cell tumor which is characterized by having cells at least twice and usually more than twice the diameter of the small lymphocyte. (b) The lymphocytic cell form has cells which are less than twice the diameter of the small lymphocyte and which look like lymphoblasts or atypical lymphocytes. (c) The giant follicle group in which huge follicles are formed, sometimes covering more than one lower power field of the microscope. It should be stated that different centers have very different ways of interpreting these terms. At

[20] Stout, A. P.: Is Lymphosarcoma Curable? J. A. M. A. 118: 968-970 (March 21) 1942.

the Memorial Hospital in New York, where formerly Dr. Ewing and now Dr. Fred Stewart prevail, almost all lymphosarcomas are said to be of the reticulum cell type. Their roster shows 94 per cent reticulum cell sarcomas and 6 per cent giant follicle tumors. Shields Warren in Boston hardly ever uses the term reticulum cell sarcoma and reports that it occurs in only 3.6 per cent of lymphosarcomas. Tracy Mallory[21] has a much more elaborate classification which includes a tumor called Hodgkin's sarcoma. After hearing Dr. Mallory discuss the lymphosarcomas I am under the impression that he and his associates in Boston are convinced that Hodgkin's Disease is a form of malignant neoplasm. I think that the prevailing pathological opinion in New York is not in agreement with this conception.

There are other classifications for lymphosarcoma which are much more elaborate than that of Mallory; for instance, the one devised by Robb-Smith of Oxford.[22] I have felt that until we get exact criteria for judging the different types of lymphosarcoma it is better to throw science overboard and use a rough classification such as I have described because it does have some prognostic value. This leads me to discuss the relative malignancy of the three types. I think everyone will agree that the follicular type of lymphosarcoma is the least malignant of all. In our group of tumors, 23.5 per cent of the patients with giant follicle tumors, 12.2 per cent of the patients with lymphocytic cell, and 7.9 per cent of those with the reticulum cell tumors were symptom-free at the end of five years. Our radiotherapists find that the reticulum cell tumor is the least and the giant follicle lymphosarcoma the most radiosensitive. We have found that the giant follicle tumors do not necessarily maintain the same characteristics indefinitely. We have had 2 cases at least that terminated with lymphatic leukemia; others ended as reticulum cell tumors. That is the reason I have suggested that Case 21, of the tonsil, and Case 22, of the stomach, may be giant follicle lymphosarcomas caught in the act of changing over into the reticulum cell type and on that account they are probably becoming less curable than if they were pure giant follicle tumors.

In regard to treatment, of our cases treated more than five years ago there were 36 with long survival. Eight of the patients have lived more than ten years. The treatment used in these cases was radiotherapy alone in about half, excision and radiotherapy in about one-fourth, excision alone in 19.4 per cent, and biopsy alone in 5.6 per cent. The cases with biopsy alone were long survival; none was cured. We have no spontaneous cures of lymphosarcoma. In the gastro-intestinal tract tumors the results are better than average. For instance, of 16 treated gastro-intestinal lymphosarcomas, 37.5 per cent of the patients survived and were symptom-free more than five years. It doesn't seem to make much difference whether they are treated by surgery or radiotherapy, although most have had radiotherapy which seems worth while because the tumor is usually radiosensitive and if any is left behind it may be successfully dealt with.

Dr. B. F. Stout, San Antonio: Is the term reticulum cell applied to the cell that is found in the germinal centers or is it derived from the reticulum cells found lining the framework of the lymph node?

Dr. A. P. Stout: Frankly, I don't know the answer to that question. I would like to believe that at least some of the cells in the germinal centers are the same reticulum cells that are found in the lymph sinuses. In the embryo, the cells of the germinal centers probably give rise to small lymphocytes but apparently histologists are in doubt about the functions of the germinal center cells after birth. Since some of them are phagocytic it seems reasonable to me to believe that they form part of the reticuloendothelial system. That is the reason that I cannot answer your question and I do not know whether anyone can do so. I believe it is the chief reason why there is so much disagreement among pathologists in regard to the naming of the lymphosarcomas.

Dr. G. T. Caldwell, Dallas: I should like to ask whether you are using the term giant follicular lymphosarcoma in the sense that Rosenthal originally used it?

Dr. A. P. Stout: When Brill, Baehr and Rosenthal[23] first described this condition they believed that it was some form of disease and not a neoplasm. Later, they were forced to change their opinion, and now the Mt. Sinai group believe definitely that it is a form of lymphosarcoma and that it is not necessary to have splenic involvement as they originally reported.[24] Statistics are accumulating from a great many institutions which confirm the opinion that the lesion is a less malignant form of lymphosarcoma.

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[21]Gall, E. A., and Mallory, T. B.: Malignant Lymphoma; Clinico-Pathologic Survey of 618 cases, Am. J. Path. 18:381-429 (May) 1942.

[22]Robb-Smith, A. H. T.: Reticulosis and Reticulosarcoma; Histological Classification, J. Path. & Bact. 47:457-480 (Nov.) 1938.

[23]Brill, N. E., Baehr, G., and Rosenthal, N.: Generalized Giant Lymph Follicle Hyperplasia of Lymph Nodes and Spleen, J. A. M. A. 84:668-671 (Feb. 28) 1925.

[24]Baehr, G.: Clinical and Pathological Picture of Follicular Lymphoblastoma, Tr. A. Am. Physicians 47:330-338, 1932.

[25]Baehr, G., and Klemperer, P.: Giant Follicle Lymphoblastoma; Benign Variety of Lymphosarcoma, N. Y. State J. Med. 40:7-11 (Jan. 1) 1940.

CASE 24

History (presented by J. M. Moore, M. D., San Antonio), Slide No. 24, Path. No. 32644.—S. D., a white woman, age 47, gave a history of having had a small mole removed by cautery from her right arm in June, 1943. Four months later, a swelling was noted in the right axilla. On February 9, 1944, a mass from the right axilla was removed, which was somewhat irregular in shape and measured 4 cm. by 5 cm. Upon sectioning, it was rather firm in consistency and yellowish gray in appearance.

Microscopic Description.—The tissue is made up very largely of a tumor composed of cords of cells which vary from polygonal to plump spindles. The cords are separated by strands of fibrous tissue of varying thickness. The cells are variable in relative size, reaching sometimes gigantic proportions with more than one nucleus. There is a marked tendency for the tumor tissue to necrose and there are various stages in the degeneration of the tumor cells in which they are vacuolated. A careful search fails to show any pigment in the hematoxylin and eosin.

Diagnosis, by Dr. Stout: *Malignant Melanoma of Axillary Lymph Glands Following Malignant Melanoma of Arm.*

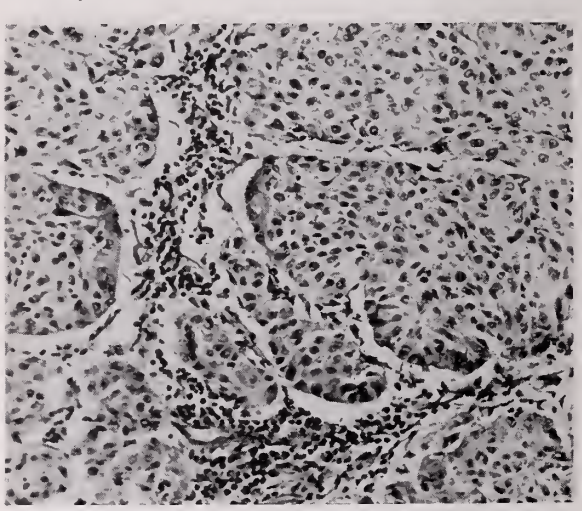

FIG. 20. (Case 24.)—Axillary metastasis of a malignant melanoma. × 150.

DISCUSSION OF CASE 24

Dr. A. P. Stout: There is very little doubt in my mind that this represents a metastasis from what was called a mole, but must in fact have been a malignant melanoma removed eight months before. The fact that no melanin is seen does not influence me at all. We know from the work of Bloch and from our own experience that the Dopa reaction can demonstrate the potential ability of a cell to form melanin even when none has been formed. I think I made all the necessary remarks about the treatment of melanomas and moles in connection with Case 12, and I shall not repeat them at this time. Of course, we cannot say that necessarily this case would have been salvaged if the primary growth had been removed by surgery instead of the cautery but it is at least possible.

Dr. H. E. Whigham, McAllen: I observed a tumor like this last week, in the axillary area. We examined the person all over and found no mole—no possible source of origin that we could locate. How about the origin?

Dr. A. P. Stout: Was the patient an adult?

Dr. Whigham: Yes, sir.

Dr. A. P. Stout: During the past two years I have analyzed 162 cases of malignant melanoma and in 17 no primary site was discovered. I imagine that many of you must have had the same experience. In New York we have a surgeon who is sometimes very determined in his search for things. He had a case of metastatic melanoma in the axillary nodes which he removed together with an adjacent mole. This showed no malignant change. This patient had nine other moles in various regions and he excised them all but histological examination showed that none was malignant. I am forced to the conclusion that malignant melanomas can be clinically so inconspicuous that they can metastasize without ever growing enough to become apparent. No other explanation is possible because the malignant melanoma can arise only where melanoblasts are found: the skin, the ectodermal mucosae, the globe—conceivably also the meninges and adrenals. There are reported cases of malignant melanoma in parts of the alimentary tract other than the anal canal and the oral cavity but personally I have never accepted them because the rest of the tract has no melanoblasts. I cannot believe melanomas can arise in places where there are no melanoblasts. I believe that all the reported cases of primary gastro-intestinal melanomas are metastases from occult primary tumors.

Dr. A. O. Severance: I should like to ask Dr. Stout whether it is possible for this much pigment to be present in a lymph node in which definite melanoma cells are not identified, and in which the explanation for the pigment lies in assuming that the cells are phagocytes filled with pigment which is draining from a benign mole on the skin nearby? Or are they actually tumor cells from a malignant melanoma in which the pigment is so great in amount that it is difficult to identify them as tumor cells?

Dr. A. P. Stout: In my experience, I have never encountered a case which was not malignant. Of course, one can detect melanin in the superficial lymph nodes very easily if the Fontana stain is used. A great many of us have melanin in our lymph nodes and it is of no significance; particularly the inguinal nodes of older people because of the progressive pigmentation of the anal and genital zones. But I know of no such case in which the node was so black that it could be seen

with the naked eye. Always such nodes have contained metastases.

Major King: Would you discuss the lesions where you find a large collection of pigment still in the corium with a large amount of fibrous tissue and no mole cells?

Dr. A. P. Stout: I believe that the lesion you describe is the blue nevus. So far as I know they are very different from the pigmented moles because their pigmented cells are mesoblastic melanoblasts instead of ectodermal melanoblasts, which is the case with the ordinary pigmented mole. They look blue because the melanin is seen through a layer of epidermis and superficial corium. They are entirely harmless and I think it is of interest and value to know that even though they may grow to a considerable size no example of a clinically malignant blue nevus or melanosarcoma has ever been described. Montgomery of the Mayo Clinic searched the literature and their own material a short time ago and reported this interesting fact.[26]

Dr. J. E. Robinson, Temple: Recently I heard a surgeon critizing the procedure rather severely because in a case of moles that had been removed and not sectioned he had encountered a melanoma of the brain. I should like for you to tell us, if you can, if there are any criteria for us to tell if the mole has already metastasized or what is the likelihood that metastasis would occur?

Dr. A. P. Stout: We always section every mole that is removed, and we have accumulated well over 1,000 of them so that I have had an opportunity to gain considerable experience. I must say that the criteria of malignancy in moles is not easy to put into words. Personally, I don't make the diagnosis of malignant melanoma unless I can find mole cells which have so changed their characteristics that they no longer look like any ordinary mole cells. If mitoses are found it is helpful, for these are rarely found in simple moles. We also look for evidence of infiltration, particularly of the epidermis. If there are changed mole cells in the layers of the epidermis, especially the external layers, I believe it is definite evidence of a malignant change. I am afraid that I cannot be more concrete than this.

Dr. Ellen Furey, Beaumont: I have had under observation over a period of several years a boy, about 6 years of age at present, who has recurrent pigmented spots on his face and various parts of his body. Somebody called the condition a malignant melanoma and since then two of these have been removed. Both of them presented the same picture of increased basal cells and a loosening of cells, and nesting-like in nevus formation. I sent one section away and they called it a blue nevus. Would you suggest that he keep on having these removed?

Dr. A. P. Stout: I would suggest that he forget about them. I don't believe that it is a malignant melanoma, and if it is there is nothing that can be done about it.

Dr. Asa Beach: Do you believe that regional node dissection of subungual melanoma should be done?

Dr. A. P. Stout: I mentioned the question of dissection in connection with Case 12. I believe that we still do it, even for subungual melanomas because, although as a class they have a somewhat higher salvage rate than the other skin melanomas, they are still as a class truly malignant metastasizing tumors. Metastasis occurred in more than half of them. I would advise doing it.

CASE 25

History (presented by H. J. Schattenberg, M. D., San Antonio), Slide No. 25, Path. No. 21612.—B., a white female, age 52, noticed "lump and fullness in the lower abdomen" about one year ago. A laparotomy was performed, at which time an ovarian tumor 21 cm. in diameter was removed. The tumor was firm and of a whitish color. It cut with an increased resistance and presented a white cut surface; the cut surface did not have a whorled appearance. There was no mention made of the presence of Meigs syndrome. The patient is living and well today.

Microscopic Description.—The section shows that the tissue is made up almost entirely of stellate cells of small size set in a loose-textured stroma of very fine connective tissue fibres which are separated so that they stand out prominently with empty spaces between them. No foam cells are found.

Diagnosis, by Dr. Stout: *Fibroma of Ovary.*

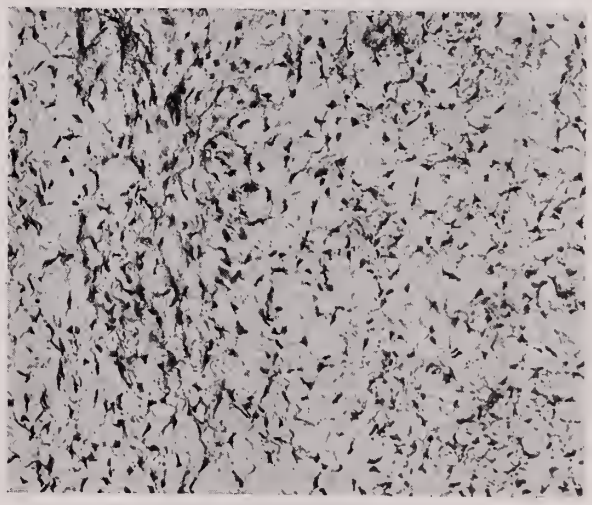

FIG. 21. (Case 25.)—Fibroma of ovary. × 150.

DISCUSSION OF CASE 25

Dr. A. P. Stout: I think the diagnosis here lies between fibroma and theca cell tumor of

[26]Montgomery, H., and Kahler, J. E.: The Blue Nevus (Jadassohn-Tieche): Its Distinction from Ordinary Moles and Malignant Melanomas, Am. J. Cancer 36:527-539 (Aug.) 1939.

the ovary. As I understand it, for the diagnosis of theca cell tumor there must be some evidence of lipoid-containing cells, and the stroma of the tumor should resemble ovarian stroma. I did not think that this tumor showed either of these features. We have no indication in the description given us that there were any yellow areas in the tumor nor that lipoid was demonstrated, nor was any evidence of hormonal activity mentioned. Therefore I classify this as a simple fibroma of the ovary. I think there are a great many ovarian fibromas which do not exhibit the Meigs syndrome. At least that is the experience of the Sloane Hospital in New York, where among a considerable number of cases there was only one with hydrothorax. The treatment of both fibroma and theca cell tumor is simple oöphorectomy. So far as I know, both of them are benign.

CASE 26

History.—The patient, a man, age 50, noticed a mass in the upper right quadrant of the abdomen and an uncomfortable fullness after eating. His appetite was poor. These symptoms lasted for one month, then in 1940 and 1941, the patient began to pass bloody urine with clots or pieces of tissue at times. He was admitted to the hospital for study. X-ray study of the kidney showed calculi on the left side; the right was diagnosed as infection with hydronephrosis to tumor. The x-ray study was repeated one month later, at which time the left kidney finding was the same, and the right kidney showed to be large and hydronephrotic with possible malignancy. Deep x-ray therapy was given. The patient was discharged, but four months later returned to the hospital. There was a slightly tender mass in the right upper quadrant, extending 8 cm. below the umbilicus, and to the left of the midline. The prostate was not enlarged but was tender on the right. X-ray study showed a metastatic tumor in the lung at the left first interspace, 1.8 by 1.5 cm.; a second one in the apex; a third in right second and third interspaces, of 5 cm. diameter. The urine showed +2 albumin; 5 to 10 pus cells per high power field, and 0-3 red blood cells. The Kahn test was negative. A blood count showed 12,400 white blood cells, stab forms 12, total neutrophiles 80, and a moderate anemia. Operation was performed November 6, 1943, and a large pigmented cystic liver mass was revealed, on which a biopsy was done. The patient died January 7, 1944. No autopsy was done.

Microscopic Description.—The biopsy from this large mass in the liver seems to me to be made up of many delicate thin-walled capillaries lined with normal endothelial cells and packed in around them, filling all the space between adjacent capillaries, many cells of indefinite shape and varying size. These show many mitoses and are associated with a good many delicate reticulin fibers. The capillaries for the most part have no lumens so that they are extremely inconspicuous. There are a few areas of hemorrhage.

Diagnosis, by Dr Stout: *Hemangiopericytoma (?) of Liver.*

DISCUSSION OF CASE 26

Dr. A. P. Stout: In case 26, we can only speculate as to the real nature of the tumor. It is obviously a malignant growth and from the history seems to be primary in the liver. There are a number of vascular tumors both benign and malignant, which originate in the liver, and they have a very varied morphology. Some of them unquestionably are hemangio-endotheliomas, but not this tumor. I say that because the tumor cells are outside of the fibrous sheaths of the vessels. It is conceivable that it is a hemangiopericytoma.[27]

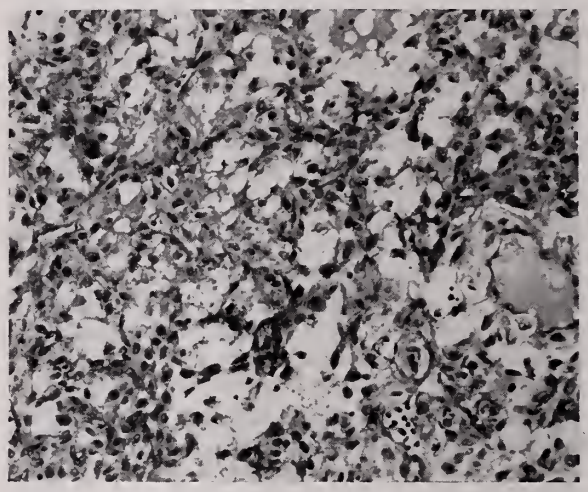

FIG. 22. (Case 26.)—Hemangiopericytoma of liver. × 150.

I would like to believe that this is what it is, but certainly I would not be dogmatic in insisting upon it. If not pericytes or endothelia, we can only speculate vaguely about an origin for the cells outside of the capillaries. I cannot recognize them as of any definite type. I cannot say they are myoblasts, or fibroblasts, or lipoblasts, and therefore the diagnosis has to remain one of opinion. My preference is hemangiopericytoma, but probably I am prejudiced.

CASE 27

History.—The patient, a white male, age 35, began having daily headaches in September, 1943, which started in the frontal region and radiated posteriorly, becoming increasingly severe. About November 1, the patient began to have vertigo. On December 14, it was noted that he had two diopters papilledema with hemorrhages. The left eye was normal. There was some incoördination of the left upper extremity, and the left knee jerk was less than the right. On December 19, the headaches were occipital. There was no aphasia, astereognosis or apraxia. The pupils were equal and reacted sluggishly to light and accommodation. Fundi showed from 2 to 3 diopters papilledema with flame-shaped hemorrhages in the right retina; the left retina showed about 1 diopter papilledema with no hemorrhage. Weber and Rinne tests were negative. There was slightly diminished hearing, air conduction. There was a slight, fine nystagmus, but no sensory changes or motor weakness, nor posterior column signs. A Kahn test was negative. The spinal fluid showed protein 25 mg. per 100 cc.; cell count, 2 poly-

[27]Stout, A. P., and Murray, M. R.: Hemangiopericytoma: Vascular Tumor Featuring Zimmermann's pericytes, Ann. Surg. 116:26-33 (July) 1942.

morphonuclears per cu. mm.; globulin, negative; and gold curve, negative.

A ventriculogram was done on December 20, and the release of pressure gave immediate relief to the headaches. There was a symmetrical dilatation of the lateral and third ventricle. The anterior margin of the fourth ventricle was 6 cm. from posterior clinoid process (normal 3.1 cm.). The patient was returned to his room in good condition, although his headaches soon returned. Vital signs remained normal and were normal at 7:30 p. m., when the nurse visited his room. When she returned at 7:50 p. m., he was dead. At autopsy a cystic cavity, 3.5 by 1.5 cm., was found in the left cerebellar lobe.

Microscopic Description.—The section shows a tumor which is quite vascular, consisting of a framework of delicate capillaries with very thin walls and lined by endothelial cells. The vessels quite often anastomose, one with the other. In between the vessels and filling up all the space, there are many bizarre cells with hyperchromatic nuclei of very variable sizes. The stain is so faint that it is difficult to trace the exact shape of these cells.

Diagnosis, by Dr. Stout: *Hemangioblastoma of Cerebellum.*

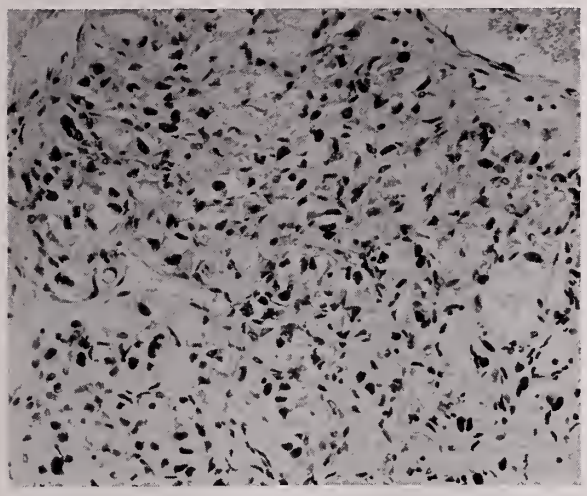

FIG. 23. (Case 27.)—Hemangioblastoma of cerebellum. × 150.

DISCUSSION OF CASE 27

Dr. A. P. Stout: I do not set myself up as a judge of neuropathology, so when I am faced with the necessity of making a diagnosis in a lesion of the central nervous system, I consult my friend and associate, Dr. Abner Wolf. He is the neuropathologist of the Neurological Institute in New York, and is entirely familiar with the ideas and language of that specialty. He assured me that this tumor belongs to the group called hemangioblastoma. I should explain to you what that means: The neuropathologists use the word hemangioma in the sense of a non-neoplastic vascular malformation. Vascular neoplasms are called hemangioblastomas. This terminology was originally devised by Cushing and Bailey.[28] In recent years some doubt has crept into the minds of the neopathologists about their ability to distinguish between a neoplasm and a vascular malformation. In any event, I asked Dr. Wolf what he considered the nature of the cells between the blood vessels. I suggested that they were glial cells and he assured me they were not and denied that it could be considered any form of glioma. This is the same sort of tumor that is found in the cerebellum in Lindau-von Hippel's disease. I might say in regard to the use of the word hemangio-endothelioma by the neuropathologists, that Dr. Wolf tells me it is used for the vascular form of meningioma which is completely different from its meaning when used in connection with vascular tumors in other parts of the body.

[28]Cushing, H., and Bailey, P.: Tumors Arising from the Blood Vessel Tumors of the Brain. Charles C. Thomas, Springfield, Illinois, 1928.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, May 7, 8, 9, 10, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, New York, 1945. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association, St. Louis, Missouri, Nov. 13-16. Dr. James A. Ryan, Covington, Kentucky, President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, Fort Worth, February. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association, Galveston, May 7, 1945. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, May 7, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Mental Hygiene Association. Dr. Charles W. Castner, Capitol Building, Austin, President; Miss Jennie S. Wilmot, University of Texas, Austin, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. McIver Furman, Corpus Christi, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Lubbock, October 10, 11, 1944. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. B. B. Griffin, Graham, President; Dr. Erle D. Sellers, Abilene, Secretary.

Fourteenth District Society. Denison, December. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

HOSPITALS NEEDING INTERNS AND RESIDENTS

Abilene State Hospital, Abilene. Capacity 1,394; admissions, 168; Dr. Bruce Allison, Superintendent (2 physicians, $2,400 per year, plus maintenance).

All Saints Hospital, Fort Worth. Capacity, 100; admissions, 4,819; Miss Eva Wallace, Superintendent (2 residents needed now).

Austin State Hospital, Austin. Capacity 2,810; admissions 1,060. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Miss Ellen Louise Brient, R. N., Superintendent (2 interns, October 1; 1, January 1, 1945).

Wichita General Hospital, Wichita Falls, capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (2 residents needed at once. Salary $175.00 and maintenance).

TETANUS ALMOST ELIMINATED IN ARMED FORCES

Tetanus has been virtually eliminated from our armed forces as a result of compulsory immunization. Major General Norman T. Kirk, U. S. A., Surgeon General of the Army, says that not a single case has been reported among completely vaccinated troops and there has been only a handful of cases throughout the entire army. These occurred prior to vaccination or before the immunization process had been completed. The Navy, which also requires tetanus immunization process, has had no cases of the disease among sailors or marines wounded in combat up to September 15, 1944, according to the Navy Bureau of Medicine and Surgery.

The most recent account illustrating the value of tetanus immunization was given in the report of a Navy medical officer who served aboard a hospital ship on which 284 Japanese and 384 Americans, all wounded in the same engagement, were being treated. Fourteen cases of tetanus, ten of which were fatal, occurred among the Japanese. None of the Americans developed the disease. Army medical records indicate that the Japanese do not immunize actively against tetanus.

VENEREAL DISEASE RATE IN ARMED FORCES REDUCED

Col. Thomas B. Turner, M. C., chief of the communicable disease treatment branch, medical consultants' division, in a panel discussion of venereal diseases held by the New York Academy of Medicine, October 12, pointed out that the venereal disease rate among soldiers stationed in this country is less than half the rate during World War I, and one-sixth the rate during the Civil War.

Colonel Turner, in discussing the applicability of chemotherapy methods in the treatment of venereal disease in military and civilian practice warned against "treating the non-infectiousness," which he said had no meaning and denotes a dangerous doctrine since experience has shown that in early syphilis a patient is either cured or not, and if he is not cured, an infectious relapse will almost surely occur.

As a further weapon to reduce venereal disease in the armed services, Congress recently repealed the venereal disease pay forfeiture act because it tempted men with venereal disease to conceal their conditions, since a soldier who formerly contracted a venereal disease through misconduct and lost time from military duty forfeited his pay for that period. According to the new law, pay is forfeited only if a man fails to report his condition.

PENICILLIN FOR SYPHILIS IN PREGNANCY

Preliminary observations indicate that penicillin has a definitely good effect both on the mother and on the child in syphilis in pregnancy and on infants who were born with the disease, J. W. Lentz, M. D.; Norman R. Ingraham, Jr., M. D.; Herman Beerman, M. D., and John H. Stokes, M. D., Philadelphia, report in *The Journal of the American Medical Association* for October 14.

They point out that the treatment of the pregnant syphilitic women and of the infants who acquired the disease prior to birth with weekly injections of neoarsphenamine and mapharsen supplemented by a bismuth preparation, "although eminently satisfactory from the standpoint of both preventive and curative medicine, still has several aspects in which improvement may be expected. . . ."

The authors believe it encouraging that among the women treated by them not a single stillbirth or neonatal death has occurred, whereas untreated pregnant women with early syphilis almost uniformly give birth to dead or diseased children. They emphasize, however, that the period of observation of the cases has not been long enough to be certain of the permanent effects of the treatment. The four physicians also report encouraging results in their treatment of congenital syphilis.

MEDICAL OFFICERS NEEDED

The Civil Service Commission has announced a new examination for Rotating Interneship and Psychiatric Resident positions at St. Elizabeths Hospital, the Federal institution for the treatment of mental disorders, in Washington, D. C. The positions pay $2,433 a year, including overtime pay.

The Interneship consists of 9 months of rotating service including medicine, surgery, pediatrics (affiliation), obstetrics (affiliation), and as conditions permit, psychiatry and laboratory. Applicants must be third- or fourth-year students in an approved medical school.

Psychiatric Resident positions consist of 9 months in psychiatry. Applicants must have successfully

completed their fourth year of study in a medical school and they must have the degree of B. M. or M. D. In addition they must have completed an accredited rotating interneship of at least 9 months or be serving such interneship at the time of making application. Persons who attain eligibility but who are still serving their interneship may have their names submitted for appointment but they cannot enter on duty until they have completed their interneship.

There are no age limits for this examination and no written test will be given. Applications will be accepted until the needs of the service have been met. Application forms may be secured at first- and second-class post offices, from the Commission's regional offices, or direct from the U. S. Civil Service Commission, Washington 25, D. C.

Appointments to Federal positions are made in accordance with War Manpower Commission policies and employment stabilization programs.

MULTIPLE BOILS CURED BY PENICILLIN

The rapid disappearance and cure of multiple furunculosis (boils) observed in 6 children under penicillin treatment indicates a result far superior to any previously known therapy for this condition, Rose Coleman, M. D., and Wallace Sako, M. D., New Orleans, report in *The Journal of the American Medical Association* for October 14. It was particularly noteworthy that some of the cases treated by Coleman and Sako had the boils superimposed on prickly heat, a condition which constitutes a common problem in the South and which often proves to be very refractory to treatment.

PENICILLIN TREATMENT OF ORBITAL CELLULITIS

The successful treatment with penicillin of a case of orbital cellulitis (inflammation of the cellular tissue of the eye socket), a dangerous disease which may lead to blindness and even loss of life, is reported by H. O. Sloane, M. D., Philadelphia, in *The Journal of the American Medical Association* for September 16.

The case reported was that of a boy of 12 whose left eye was involved, the infection originating in one of the sinuses. Sulfadiazine was tried without affecting the condition in any way and operation was contemplated both for the sinus condition and locally to establish drainage and relieve the inflammation and swelling of the tissues in the socket of the left eye. However, Dr. Sloane says, under the continued use of penicillin administered by injection into a vein for a period of ten days the condition cleared up completely, so that it was unnecessary to operate.

DANDRUFF CAUSE OF ECZEMA IN INFANTS

Dandruff from parents or others, including themselves, is an important cause of eczema in infants and young children, Frank A. Simon, M. D., Louisville, Ky., reports in *The Journal of the American Medical Association* for June 3.

He says that "Evidence demonstrating the etiologic significance of human dander in the genesis of infantile eczema consists of: I. Positive skin reactions to patch tests with human dander in 15 of 20 infants and young children with eczema, whereas in 23 noneczematous infants and young children there was only one positive reaction to the patch test. 2. The fact that all children are exposed to human dander, either from their own scalps or from those of parents or others with whom they come in contact. 3. The prompt clinical improvement in 3 or 4 cases following the institution of measures directed at the avoidance of contact with human dander. 4. The reproduction of the lesions at will in 4 cases (out of four attempts) on a previously uninvolved skin area by exposure of this area to contact with human dander."

CIGARET ASH SPILLED ON FOOD

In answer to the question of "How harmful is cigaret tobacco ash, for example, when it is accidentally spilled on food and the food accidentally eaten?" *The Journal of the American Medical Association* for September 30 says:

"The ash of cigaret tobacco itself may contain traces of lead or arsenic, as well as carbon and mineral constituents, but in itself it is not harmful when ingested in small amounts. However, the incompletely burned cigaret tobacco behind the burning point may contain rather high concentrations of tobacco alkaloids, and so care should be taken to avoid contamination of food with material from the stump, behind the ash. Nicotine poisoning, with fatalities, has been reported from contamination of food with cigaret residues, but it is the unburned material, not the ash, which is here responsible."

It has been argued that if tuberculosis were made uniformly compensable, it would soon be wiped out; but it is obviously unfair to ask industry and the insurance carrier to take upon their shoulders the accrued liabilities of tuberculosis in industry. When industry and the worker realize the terrible cost in manpower and human suffering that tuberculosis entails and that a method of control is feasible, then case finding in industry will be more eagerly accepted and may, in fact, be one of the outstanding contributions toward public health that will survive this war.—*Irving R. Tabershaw, M. D., Industrial Medicine*, March, 1943.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during October:

Dr. D. J. Jenkins, Daingerfield—*Socialized Medicine* (9 journals).

Major S. H. Nickerson, Camp Maxey—(1 journal).

Dr. M. L. Stubblefield, Gorman—*Tuberculosis* (16 articles).

Dr. Don W. Freeman, Denison—*Neuritis* (22 articles).

Dr. J. W. Gooch, Shamrock—*Aneurysm* (26 articles).

Mrs. W. R. Thompson, Fort Worth—(7 journals).

Lt. Comdr. Richard E. Ching, Corpus Christi—(1 journal).

Dr. F. A. White, Childress—*Syphilis, treatment* (3 journals).

Dr. Ben M. Shelton, Brownwood—*Glasses, contact* (15 articles).

Lt. Frederick W. Steinberg, Camp Barkley—(6 articles).

Dr. Walter L. Jackson, Ranger—(1 book).

Dr. F. T. McIntire, San Angelo—*Prostate, cancer* (11 articles).

Dr. Russell D. Holt, Meridian—*Arsenic & Arsenic Compounds, toxicity* (23 articles).

Major Hall H. Ratcliffe, Camp Maxey—*Actinomycosis* (20 articles).

Dr. J. A. Garcia, Corpus Christi—*Labor, painless* (3 journals).

Dr. I. E. Colef, Corpus Christi—*Air, bacteriology* (8 articles; *Wounds, healing* (7 articles); *Industry & Occupations* (20 articles).

Southwestern Medical Library, Dallas—1 journal); (3 jounrnals).

Dr. F. R. Rugeley, Wharton—(3 journals).

Lt. Col. Richard A. Dathe, Camp Maxey—(2 journals).

Dr. O. R. Goodall, Memphis—*Emphysema* (36 articles).

Mr. George Leffler, Keene—*Quackery, history* (20 articles).

Dr. Thomas E. Cook, Dallas—*Cecum, tumors* (22 articles).

Lt. Irwin R. Callen, Camp Maxey—*Vasomotor System* (19 articles).

Dr. W. G. Harrison, Jr., Wichita Falls—*Blood, groups* (10 articles).

Dr. Robert F. Thompson, El Paso—*Bladder, foreign bodies* (21 articles).

Dr. R. T. Wilson, Austin—*Roentgenology* (14 articles).

Dr. H. H. Cartwright, Breckenridge—*Anesthesia, paravertebral* (12 articles).

Dr. Charles B. Reed, Clarksville—*Tumors, melanoma* (13 articles).

Lt. Col. M. P. Starr, San Antonio—(1 book).

Drs. Lamm & Lamm, La Feria—*Foot, flat* (8 articles).

Dr. John L. Dean, Jr., Crockett—*Syphilis, therapy* (19 articles).

ACCESSIONS

Philadelphia, W. B. Saunders—Moore: Textbook of Pathology.

Philadelphia, J. B. Lippincott Company—Bunnell: Surgery of the Hand.

Baltimore, Williams & Wilkins Company—Everett: Gynecological and Obstetrical Urology.

New York, Paul B. Hoeber—Hertzler: Diseases of the Thyroid Gland.

Presented by the author—Hertzler: The Grounds of an Old Surgeon's Faith; Ventures in Science of a Country Surgeon.

SUMMARY

REPRINTS RECEIVED, 1,059	LOCAL USERS, 26
JOURNALS RECEIVED, 153	BORROWERS BY MAIL, 31
ITEMS CONSULTED, 148	PACKAGES MAILED, 34
ITEMS TAKEN OUT, 226	ITEMS MAILED, 403

TOTAL ITEMS CONSULTED AND MAILED, 777

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during October:

Rusk County Medical Society, Henderson—*Psychiatry in Action* (available for loan through courtesy of British Information Services).

Sanitorium of Paris, Paris—*Sulfonamide Therapy* (available for loan through courtesy of Lederle Laboratories, Inc.); *In Defense of a Nation.*

NEWS

Army Discharges Eighty-one Baylor Students.—Eighty-one students at Baylor University School of Medicine and Dental College, under the Army Specialized education program, were given honorable discharges from the Army, July 16. Students enrolled in the education program had the choice of being discharged or entering the medical corps. The students discharged elected to continue their medical education as civilians.—*Houston Press.*

Dallas Academy of Ophthalmology and Otolaryngology held its first meeting of the 1944-1945 program at the Dallas Athletic Club, October 3. Following a dinner, a program on the use of penicillin was presented.

Dr. Chester North Frazier, professor of dermatology at the University of Texas School of Medicine, Galveston, spoke on the uses of penicillin.

Major George F. Wollgast, McCloskey General Hospital, Temple, spoke on the uses of penicillin in war wounds.

Dr. Arthur G. Schoch, head of the Dallas Syphilis and Venereal Disease Clinic, Parkland Hospital, and connected with the National Research Council, discussed the use of penicillin in eye, ear, nose and throat diseases.—*Dallas Times Herald.*

Baker Hotel, Mineral Wells, Appoints Medical Director.—The Baker Hotel, Mineral Wells, recently appointed Dr. E. F. Yeager of Mineral Wells, as Medical Director. Dr. Yeager will serve in this capacity in addition to his regular medical practice. His services as Medical Director will be for guests who register to take the baths and water, and each will undergo an examination and will be under the direction of a physician without additional cost to the guest. E. J. Benavides, vice-president of the Baker Hotel, stated that changes and policies would be instituted to enable the hotel, especially after the war, to be directly in accordance with the standards of the American Medical Association as they pertain to health resorts.—*Mineral Wells Index.*

Phi Chi Fraternity Sponsors Medical Lectures.—Dr. A. J. Carlson, professor of physiology of the University of Chicago, and president of the American Association for the Advancement of Science, delivered lectures recently at the University of Texas School of Medicine, Galveston, Baylor University College of Medicine, Houston, and Southwestern Medical College, Dallas, under the auspices of the Phi Chi medical fraternity, the three Texas chapters uniting to bring him to Texas for the purpose, informs the Galveston *News.* Dr. Carlson is a nationally known authority on nutritional problems. Members of the faculty, student body and others interested were invited to attend the lectures.

At the same time that Dr. Carlson spoke at Galveston, Dr. Marcus Nunez, professor of pathology at Marquette University Medical School, Milwaukee, also delivered a lecture on "Tropical Diseases in Relation to Nutrition."

Dr. Carlson, while speaking at Dallas, referring to the Wagner-Murray-Dingell bill pending in the Congress, and according to the Dallas *Times Herald,* asserted that, "It would be a much better expenditure of funds if the government would just undertake the support of medical research and increase its participation in promoting public health measures designed to help people take care of themselves and to understand the importance of their turning to their doctors for treatment, instead of the proposed regimentation of the medical profession."

University of Texas Medical School Accepts Gifts.—At a meeting of the Board of Regents of the University of Texas, September 29, two gifts to the medical branch were accepted by the Board, advises the

Galveston *Tribune*. The Board acknowledged a gift from John Waterman Langley of Galveston, a student in the medical school, of twenty volumes of "A Compilation of the Messages and Papers of the Presidents," for the library of the medical college.

A gift of $10 from Mrs. George Clifton Edwards of Dallas was also accepted for the purpose of providing aid to needy children.

Dallas Physicians Pledge to Baylor Fund.—Dallas physicians and surgeons will unite to adopt one complete unit of the Truett Memorial Building at Baylor Hospital, as a gift towards helping relieve the critical shortage of Dallas hospital beds, reports the Dallas *News*. The unit of the Truett Memorial Building adopted will be identified by a placque bearing the name of the Dallas County Medical Society as the donor and $50,000 will be raised from members of the Society to underwrite the cost of the unit. This action was a part of the Baylor in Dallas campaign to raise $1,200,000 for the memorial building and new quarters for the Baylor University School of Nursing and College of Dentistry. It was pointed out that Dallas has outgrown its present hospital facilities to the extent that it now provides only 60 per cent of its minimum needs. Heading the medical section in connection with the campaign is Dr. D. W. Carter, Jr., president of Dallas County Medical Society, and Dr. Curtice Rosser and Dr. A. I. Folsom, co-chairmen.

Baylor Postgraduate Course in Tropical Medicine.—A refresher course in tropical medicine was given by Baylor University College of Medicine to Houston physicians during the periods of October 9 to 13, and October 16 to 20, inclusive, states the Houston *Post*. Dr. W. H. Moursund, dean, called attention to the likelihood of appearance of tropical diseases in returning service men, as well as the transmission of some of these diseases into the United States as the result of the heavy traffic with the Far East incident to the war. In addition, there is now available much new information on the recognition and treatment of tropical diseases from experience gained by the armed forces who have been in actual contact with them in various war theaters. Later, stated Dr. Moursund, the college expects to add refresher courses in other fields of medicine, but the present necessity for practically continuous teaching under the war-time accelerated program by medical colleges throughout the country, has made it impossible to provide such courses as extensively as can be done in peace-time.

New Hospital for Schulenburg.—The Schulze Hospital, named after Dr. Gene Schulze of Schulenburg, was recently opened in that city, under the direction of Sisters of the Congregation of Incarnate Word and Blessed Sacrament, informs *The Alamo Register*. The hospital is housed in two former residences that have been joined by a corridor. The hospital will provide fifteen beds, eight bassinets, and a modern operating room, and the usual hospital facilities.

Merger of Dallas City and County Health Departments Recommended.—Members of the Dallas County Medical Society launched a campaign recently to consolidate the city and county health departments of Dallas and Dallas County on the basis that such a merger would greatly increase the total efficiency of public health service rendered with a considerable decrease in overall cost, states the Dallas *News*. Dr. J. H. Black, chairman of the committee of the Society which recommended the merger, and which recommendation was unanimously adopted by the Society, said that the proposal has been approved by county health officer Dr. J. M. Pickard, and acting city health officer, Dr. J. M. Dowis. If the action proposed is approved by the city council and county commissioners' court, an enabling act permitting the merger will be introduced at the next legislature. The plan proposes that the two departments, after being merged, be housed in enlarged headquarters at Parkland Hospital, which is jointly operated by the city and county. The committee made a six-months study of the matter before making its recommendation, and investigated mergers of health departments in Louisville, Kentucky, and Nashville, Tennessee, which have resulted in greatly increased efficiency, with lessened cost, and have received general approval. Other members of the committee besides Dr. Black, are Drs. M. O. Rouse, J. O. Goforth, O. T. Woods, and Davis Spangler.

The Texas Surgical Society held its Fall semi-annual meeting October 2 and 3, at the Galvez Hotel, Galveston, with a good attendance. The following scientific program was carried out on the first day of the meeting:

Surgical Treatment of Tumors of the Liver—J. W. Duckett, M. D., Dallas.
Adenoma of the Pancreas with Hyperinsulinism—George R. Enloe, M. D., Fort Worth.
A Simple, Safe, Efficient Method of End-to-End or End-to-Side Intestinal Anastomosis—Peyton Barnes, M. D., Houston.
Presacral Tumors—G. V. Brindley, M. D., Temple.
Chronic Dislocation of the Metacarpal of the Thumb—G. W. N. Eggers, M. D., Galveston.
Deficient Fixation of the Right Colon—F. C. Beall, M. D., Fort Worth.
Tropical Surgery—Marcus Fernan-Nunez, M. D., Professor of Pathology, Marquette University Medical School, Milwaukee, Wisconsin.
Spontaneous Rupture of the Spleen—Captain S. E. Russ and (by invitation) Captain John S. Gaynor, Ashburn General Hospital, McKinney.

On the second day, a clinic session was presented in the outpatient amphitheater, medical branch, University of Texas, by members of the staff of the medical school, as follows:

Postpartum Sterilization—Willard R. Cooke, M. D.
Presentation of Urological Cases—R. E. Cone, M. D.
Tumors Involving the Head of the Pancreas—Edgar J. Poth, M. D.
Chemotherapy in Osteomyelitis—G. W. N. Eggers, M. D., and (by invitation) Orrie W. Stehouwer, M. D., and Gerald Young, M. D.
Demonstration of Cases of Pneumonectomy for Tumors and Infections of the Lung—A. O. Singleton, M. D., and (by invitation) George S. McReynolds, M. D., and H. C. Slocum, M. D.

During the business session, officers elected for the ensuing year were: President, Dr. Sam Weaver, Dallas; first vice-president, Dr. J. E. Clarke, Houston; second vice-president, Dr. George Enloe, Fort Worth; treasurer, Dr. Elbert Dunlap, Dallas; secretary, Dr. Walter G. Stuck (re-elected), San Antonio.

The Society voted to hold its 1945 spring meeting in Fort Worth in April.

Dr. Sam Dunn of Lubbock and Dr. Granville Adams of Houston were elected to membership.

Entertainment features in connection with the meeting were a cocktail party in the evening prior to a dinner at the Galvez Hotel. On the latter occasion, Mr. Stewart H. Evans, British vice consul, was the guest speaker. The subject of his talk was "A Clipper Trip to England." Mr. Stewart recently returned from such a trip and his address was interesting.

Army-Navy Medical Meeting.—Surgeons representing ninety-five Army and Navy station hospitals in five southwest states attended a two-day surgical conference at the San Antonio Aviation Cadet Center's Army Air Forces Regional Hospital, September 11 and 12, reports the San Antonio *Express*. States represented at the meeting included New Mexico, Louisiana, Oklahoma, Arkansas and Kansas. The meeting was held under the auspices of the Air Surgeon, Washington, D. C., for the purpose of discussing current surgical problems in the treatment of Army Air Force personnel. The conference was under the direction of Col. L. Render Braswell, post surgeon and commanding officer of the A. A. F. Regional Hospital, San Antonio, and Lt. Col. L. H. Collins, chief of professional services.

Included on the program were discussions of sur-

gery in aviation medicine, management of shock, skin grafting and general surgery, and care of convalescent surgical patients. The main feature of the meeting was a tour by those in attendance of the A. A. F. Training Command's Convalescent Training Unit. Interesting cases were also demonstrated in the surgical clinic by members of the hospital training staff.

The Southern Chapter of the American College of Chest Physicians will meet November 13 to 16 at St. Louis, in conjunction with the meeting of the Southern Medical Association in that city. The following scientific program will be presented:

The Unexpandable Lung—Sydney Jacobs, M. D. New Orleans, Louisiana.

Primary Carcinoma of the Lung: Ten-Year Follow-Up—William F. Reinhoff, Jr., M. D., Baltimore, Maryland.

Rehabilitation of Cases of Lung Resection—Lt. Col. Brian B. Blades, M. C., Washington, D. C.

What Shell We do with Silent and Masquerading Chest Lesions?—Richard H. Overholt, M. D. Brookline, Massachusetts.

Atypical Pneumonia Resembling Pulmonary Tuberculosis—Major Walter L. Nalls, M. C., Washington, D. C.

Hedblom's Syndrome: Acute Primary Diaphragmitis—Nina Joannides, M. D., Chicago, Illinois.

Tuberculosis Empyema—George G. Ornstein, M. D., New York, New York.

Pneumonoconiosis, Especially as Found in the Metal and Granite Trades—O. A. Sander, M. D., Milwaukee, Wisconsin.

The DeSoto Hotel will be headquarters. It is urged that physicians expecting to attend this meeting make hotel reservations at once.

Stephenville Hospital to Be Enlarged.—Construction of an eighteen room annex to the Stephenville Hospital will begin soon, informs the Stephenville *Empire Tribune*. Materials and equipment are already on the ground. It is estimated that the annex will be completed in about sixty working days. The extreme need for additional hospital facilities made possible priorities for securing the necessary building material. The addition will be south of the north portion of the present building. Completion of the annex will give the hospital sixty-five rooms for bed patients, and will add six office rooms. The present operating and delivery rooms will be enlarged and another operating room will be provided.

French Hospital Donated to American Army.—In a brief, impressive ceremony, M. Yves. Milon, mayor of Breton City, France, presented a hospital to Col. Roy W. Grower, commanding officer, who accepted the gift on behalf of the U. S. Army and paid tribute to the hospital unit for the manner in which it had attacked a seemingly impossible job, advises the Houston *Press*. Lt. Col. Robert M. Moore, formerly associate professor of surgery at the University of Texas School of Medicine, is chief of surgical service at the hospital. Former Houstonians on the staff include Maj. James E. Pittman, Capt. Buell A. Lawrence, Capt. James K. Polk, Capt. Robert J. Robinson, Capt. Clyde J. Verheyden, and Major Logan B. Hendrixson.

The hospital will be operated for the wounded soldiers of all allied armies in the French area. It was formerly a medical center of the French Sisters of Charity and for almost four years the Nazis used the buildings as their main medical installations. Large amounts of drugs and medicine abandoned by the Germans in their hasty evacuation were turned over to the local French physicians.

The Texas Tuberculosis Association held its thirty-fifth annual meeting in Austin, September 18 and 19, with an attendance of 200, including members of boards of directors of the state and local tuberculosis associations, physicians in private practice, representatives of official health agencies, of which latter group forty-five were public health nurses, and interested laymen. The program was divided into medical and non-medical sections.

During the annual business meeting, resolutions were adopted providing that the Association recommend that the service of the federal works agency, rehabilitation division, provide a worker to coöperate with the medical staff of the State Tuberculosis Sanatorium in connection with the vocational guidance preparatory to later rehabilitation of indigent tuberculous patients unable to return to former vocations.

Resolutions were also adopted providing that the Association go on record as recommending that an appropriation be made by the State of Texas for facilities and personnel to render surgical treatment in indigent cases admitted to the State Tuberculosis Sanatorium, since the Sanatorium does not at present have such equipment and personnel.

At a meeting of the Board of Directors of the Association, following adjournment of the meeting of the membership, resolutions were adopted providing that every effort be made to assist and coöperate with the Texas State Department of Health in acquiring a military or other establishment that can be converted into an institution for the treatment, isolation and segregation of dangerous cases of tuberculosis for the protection of families and community contacts; and providing further that necessary legal authority be established when sufficient facilities have been obtained, to, if necessary, forcibly hospitalize infectious cases endangering family and community contacts until such time they are no longer a menace to public health; and further provided that counties in Texas desiring to participate in general public health programs and eradication of tuberculosis may vote a tax up to ten cents per $100 valuation.

The following officers were elected for the ensuing year: president, Dr. J. B. White, Amarillo; first vice-president, Dr. J. W. Laws, El Paso; second vice-president, Dr. M. A. Cunningham, Beaumont; secretary, Mr. J. W. Butler, Texas City; treasurer, Dr. Z. T. Scott, Austin; and executive committee, Dr. McIver Furman, Corpus Christi; Dr. Elliott Mendenhall, Dallas; Dr. R. G. McCorkle, San Antonio; Dr. J. Edward Johnson, Austin; Mr. Weldon Surber, San Angelo.

The following physicians were elected to the board of directors for a term of three years as representative directors of their local tuberculosis associations: Dr. L. W. Kirkland, Bee County; Dr. Elva A. Wright, Harris County; Dr. J. Melvin Crymes, Mitchell County; Dr. Edith Bonnet, Bexar County; Dr. M. L. Fuller, Palo Pinto County; Dr. H. Frank Carman, Dallas County; Dr. Anne Schley Duggan, Denton County; Dr. W. L. Marr, Galveston County; Dr. J. B. White, Potter County; Dr. J. W. Laws, El Paso County.

The following physicians were elected directors at large for terms of one, two and three years: one year—Dr. C. B. Young, Tyler; Dr. Elliott Mendenhall, Dallas; Dr. R. J. Hanks, Waco; Dr. H. E. Lee, Houston. Two years—Dr. M. A. Cunningham, Beaumont; Dr. David McCullough, Kerrville; Dr. R. G. McCorkle, San Antonio; Dr. C. M. Hendricks, El Paso; Dr. Charles W. Castner, Austin. Three years—Dr. J. Edward Johnson, Austin; Dr. Z. T. Scott, Austin; Dr. E. G. Faber, Tyler; Dr. McIver Furman, Corpus Christi; Dr. Holman Taylor, Fort Worth; Dr. J. B. McKnight, Sanatorium; Dr. J. W. Nixon, San Antonio; Dr. Joaquin Gonzalez Cigarroa, Laredo; Dr. Howard Smith, Austin.

A Texas Chapter of the American Trudeau Society was organized at a luncheon held during the recent annual meeting of the Texas Tuberculosis Association. Membership in the Society is open to physicians interested in tuberculosis. The Texas Trudeau Society will serve as the medical section of the Texas Tuberculosis Association and will have the responsibility of developing the programs of the medical section at annual meetings of the State Association. The following officers were elected for the Texas

Chapter of the American Trudeau Society: Dr. H. Frank Carman, Dallas, president; Dr. J. B. White, Amarillo, vice-president; Dr. Elliott Mendenhall, Dallas, secretary-treasurer.

A Regional War-Time Graduate Medical Meeting was held September 16, at the William Beaumont General Hospital, El Paso, under the sponsorship of the American Medical Association, American College of Physicians, and American College of Surgeons. The meeting was devoted to the medical and surgical aspects of joint disease. The committee in charge of the meeting consisted of Dr. A. O. Singleton, Galveston, chairman; Dr. J. N. Goode, Dallas, and Dr. C. T. Stone, Galveston. The program was divided into two sessions for approximately seventy-five physicians attending in the morning, and about 125 in the afternoon. Among the guest speakers were Dr. Joseph A. Freiberg and Lt. Col. Philip S. Hench.

Board of Regents Reject President Rainey's Proposal to Move Medical School.—The Board of Regents of the University of Texas at its annual session voted 6 to 1 in repudiation of the recommendations of President Rainey of the University that the Medical School be moved from Galveston to Austin, informs the Dallas *News*. The lone dissenting vote was cast by Mrs. I. D. Fairchild of Lufkin. The Board not only recommended that the Medical School remain permanently at Galveston, and the Dental College at Houston, but further opposed President Rainey's program by urging the return to Galveston of the School of Pharmacy, now at Austin, and investigation of the need for consolidating at Galveston all nursing education, some of which now is offered at Austin. In discussing the matter, the Regents emphasized that the question of moving the Medical School could be decided only by the voters of Texas upon submission of a constitutional amendment by the Legislature. Its present location is fixed by the Constitution. The likelihood that the Legislature will be asked to submit a constitutional amendment was indicated in telegrams from Senators Penrose Metcalfe of San Angelo, and Fred Mauritz of Granado, both of whom suggested that the Regents postpone action until the Legislature meets. Members of the board stated that they wanted to express their views now so that agitation for the change might be quieted and definite plans made for improving the Medical School.

The board accepted an offer of the Sealy and Smith Foundation of Galveston to give two million dollars for construction of a new general hospital which would provide more clinical material for the Medical School. The final offer of two million dollars, which was accepted by the Board, had no strings attached. The original offer to the Board for a new general hospital was one million dollars providing the regents would contribute a like amount, the Galveston *Tribune* points out. At the July meeting of the Regents, this offer was increased to $1,500,000 providing the Regents would contribute $250,000 and at the September meeting the offer was boosted to two million dollars without any obligation on the part of the Board to contribute any funds toward the hospital. The recommendations adopted by the Board were based on a report of a committee of Regents composed of Hilmar Weinert, Seguin; Orville Bullington, Wichita Falls, and D. F. Strickland, Mission. The report of the committee, adopted by the Board, also called for reopening of the State Psychopathic Hospital at Galveston; the emphasizing of research rather than treatment of patients at the Cancer Hospital to be built at Houston; the enlargement of the medical school's department of pediatrics, with enlargement of the Children's Hospital and Nursing Home, and additional housing facilities for the college of nursing operated in conjunction with the medical branch, advises the Austin *American*. Appearing before the Board, prior to its action in turning thumbs down on President Rainey's program, were representatives from San Antonio, who asked that the Board not hastily decide on the Sealy and Smith Foundation offer of two million dollars, and that the matter of removal of the Medical School be referred to the Legislature. The San Antonio citizens also offered the Board of Regents what the spokesman for the group referred to as an endowment equivalent to $10,500,000 and a great supply of clinical material if the medical branch was moved to San Antonio, states the Austin *American*.

The Houston *Post*, in editorializing on the offer of San Antonio, admits that the figure of $10,500,000 in money and property would be hard to top but "if the medical branch of the University of Texas is to be placed on the auction block, the voters of Texas cities had better be sharpening their pencils." The *Post* says further that if and when the matter should reach a stage at which consideration would be given to removal of the Medical School from Galveston, Houston philanthropists had better get in a bid, and asserts that Houston is the logical place for the school, averring that the greatest medical center in the South is now assured for Houston.

The Tyler *Telegraph*, in an extended editorial discussion of the action of the Board regarding the removal of the Medical School from Galveston, offers the opinion that the question is one which should be decided on its merits by the people of Texas and not by the commercial interests of the cities involved. It insists that the Regents should have recommended to the State Legislature that the question be placed before the electorate in the form of a proposed constitutional amendment.

The Wichita Falls *Times* points out that while President Rainey may be disappointed that the Regents disapproved his plan of moving the medical department to Austin, he at least can find some consolation in the fact that his effort has brought new gifts to the Medical School from Galveston citizens, who took this means of showing their loyalty to the institution. The *Times* makes the further unique comment that if all phases of medical training, including dentistry, pharmacy, nursing, and medicine, were at one place, with an institution independent of the main university, a more effective setup would be provided. It asserts that the one objection to Galveston is that the city is not large enough to provide the human material for instruction. The *Times* further says that since it is obvious that the Medical School is not to be moved, the University must make the best of it and it proposes that the solution may be to do away with the step-child status of the medical branch and let it operate on a wholly independent basis.

Military Personals

Lt. (jg) Edward L. Craine, Jr., 27, of Houston, Texas, attached to the Marines, saw his first action on the front lines under fire treating the wounded during the first two days and nights of the invasion of the Palau Islands. Dr. Craine and another Navy physician, Lt. (jg) Peter H. Mulder of Wooster, Ohio, set up their aid station at the water's edge, where they were under constant fire. Since it was impossible to get all the wounded to the beach immediately, Dr. Crain advanced to the lines and after treating wounded men through the first night, followed his outfit the next morning when they advanced across the airport in the face of concentrated machine gun, mortar and artillery fire. A corpsman, paying tribute to the valor of Lieutenant Craine, said, "He would wait for a star shell at night, then find the wounded man's vein in the brief light to administer plasma. After he had treated them, he'd help carry them out on stretchers."

Dr. Otto Brandt, Jr., former resident at St. Paul's Hospital, Dallas, entered active duty with the U. S. Army, October 1.

Dr. Alfred Louis Vassallo, former resident at St. Paul's Hospital, Dallas, entered active duty with the U. S. Army, October 1.

Drs. James V. McKay and Capres S. Hatchett, Jr., former residents at Parkland Hospital, Dallas, are now serving with the medical corps of the U. S. Army.

Dr. Robert Oliver Whitson, former resident at Parkland Hospital, Dallas, entered military service in the medical corps of the U. S. Army, and is now stationed at Carlisle Barracks, Pennsylvania.

Dr. Irving M. Richman, former resident at Baylor University Hospital, Dallas, is with the medical corps of the U. S. Army, and stationed at Wakeman General Hospital, Camp Atterbury, Indiana.

Dr. Stanley Howard Jaynes, who formerly interned at the Robert B. Green Memorial Hospital, San Antonio, is now serving with the medical corps of the U. S. Army.

Drs. John T. Hartman and *Edward J. Donovan*, former residents, and *Drs. Thomas V. Kretschmer, Anthony M. Kurland, Robert Franken* and *Phillip L. Day*, and *Dr. Victor M. Blanco*, former interns at Santa Rosa Hospital, San Antonio, are now serving in the medical corps of the U. S. Army.

Personals

Dr. O. B. Kiel, Wichita Falls, was recently appointed a member of the State Board of Health by Governor Stevenson, succeeding Dr. S. E. Thompson of Kerrville, who resigned. Dr. Kiel will serve until June 15, 1949.—*Wichita Falls Times.*

Dr. D. P. Jones was recently named health officer of Plainview, succeeding *Dr. J. L. Guest*, informs the Plainview *Evening Herald.*

Dr. H. H. Ogilvie, San Antonio, was elected vice-president of the International College of Surgeons at the recent annual meeting at Philadelphia, informs the San Antonio *News.*

Dr. Marvin Rape, San Angelo, took postgraduate work during October at New Orleans, reports the San Angelo *Standard Times.* Dr. Rape was accompanied by Mrs. Rape to New Orleans.

Dr. H. F. Connally, Waco, was recently appointed medical director of the Amicable Life Insurance Company, succeeding the late Dr. Carl Lovelace.—*Waco Times Herald.*

Dr. C. E. Wilson has returned to Wink following an extended absence taking special training in eye, ear, nose and throat work, informs the Wink *Bulletin.*

Dr. William M. Branch, El Paso, was assaulted and robbed recently by two armed men. Dr. Branch reported that the two men asked him to change a twenty-dollar bill and when he turned to open the safe, they attacked him. His assailants overlooked about $1,200 in bills of various denominations in a box compartment of the safe. The robbers have been apprehended and part of the money stolen has been recovered.

Dr. G. S. True, Big Spring, retired from practice after fifty-eight years and celebrated his fifty-sixth wedding anniversary with Mrs. True on September 5, advises the San Angelo *Standard Times.*

Dr. O. M. Watson, Jr., who was recently operated on in a Fort Worth hospital, is convalescing satisfactorily after his return to his home in Bridgeport, states the Bridgeport *Index.*

Dr. A. L. Delaney, Liberty, was elected president of the Liberty County Tuberculosis Association at the annual meeting of that organization September 8, reports the Liberty *Vindicator.*

Mrs. J. B. Shelmire, wife of the late Dr. J. B. Shelmire, widely known dermatologist of Dallas, and mother of Dr. Bedford Shelmire of Dallas, a former president of the American Society of Investigative Dermatology, died September 26, at her home in Dallas. In addition to her son, Mrs. Shelmire is survived by three daughters.—*Dallas News.*

Dr. and Mrs. J. E. Morris observed their Golden Wedding anniversary September 12, with an open house at their home in Madisonville, informs the Madisonville *Meteor.* A large number of friends called to pay tribute to their half century contribution to Madisonville and Madison County.

Marriages

Dr. F. M. Burke, Coleman, was married to Miss Ruth Pettus of Berkeley, California, September 15, at Dallas. Dr. Burke is superintendent of the Overall Memorial Hospital at Coleman.

Births

A son was born to *Dr. and Mrs. Lucian M. Buckowski*, Houston, September 24, 1944.

A daughter was born to *Dr. and Mrs. J. Morris Tucker, Houston*, October 9, 1944.

SOCIETY NEWS

Baylor-Knox-Haskell Counties Society

September 19, 1944

Baylor-Knox-Haskell Counties Medical Society met September 19, at Munday, with seven members and one visitor present.

John Wiggins, Fort Worth, read an interesting paper on diseases of the chest.

Bell County Society

August 2, 1944

(Reported by J. H. Greenwood, Secretary)

Bell County Medical Society met August 2, at the Kyle Hotel, Temple, with twenty-nine members and nine visitors present, including H. F. Connally, Waco, President of the State Medical Association.

Charles Phillips gave a report of a meeting of the public health committee, at which problems of the Central Texas Health Unit were discussed with the director, including the new method of financing the unit on a dollar for dollar matching basis by Bell County and the State Health Department, since Burnet and Llano Counties have withdrawn from participation in the health unit. The committee had voted to recommend that the director continue in his administrative capacity rather than become a routine clinician. It had further been decided to ask the government of Temple for a larger and better building for the venereal disease clinic. The committee was further considering the wisdom of employing a full-time venereal disease clinician for four counties in place of local clinicians now used.

G. V. Brindley, Councilor of the Twelfth District, presented H. F. Connally, Waco, President of the State Medical Association, who addressed the Society on problems confronting the medical profession and outlined a prepayment plan for medical service which will be acceptable to the low income group, and which the State Medical Association felt might offset socialized medicine.

V. J. Simmon was elected to membership on application.

Dallas County Society

September 14, 1944

(Reported by W. W. Fowler, Secretary)

Symposium on War Injuries:

Surgical Indications in Bronchiectasis—Lt. Col. M. Dawson Tyson.

Repair of Skull Defects with Tantalum—Major Wm. T. Haverfield.
Reconstructive Surgery of Abdominal War Wounds—Major W. R. Manning.
War Wounds of the Musculo-Skeletal System—Major Clinton L. Compere.

Dallas County Medical Society met September 14, in the Medical Arts Auditorium, Dallas, with fifty-three physicians present. The scientific program as given above was carried out.

Lt. Col. Tyson illustrated his address on surgical indications in bronchiectasis with lantern slides of many cases in which he had performed lobectomy.

Major W. T. Haverfield illustrated his address on repair of skull defects with lantern slides showing patients on whom skull defects had been repaired with tantalum. His paper was discussed by C. C. Nash.

The paper of Major W. R. Manning on reconstructive surgery of the abdominal war wounds, illustrated by lantern slides, was discussed by J. G. Kerr and R. G. Carpenter.

The paper of Major C. L. Compere on war wounds of the musculo-skeletal system, which was illustrated by lantern slides showing methods of treatment of various skeletal conditions, was discussed by Lt. Col. Tyson.

New Members.—Arthur Grollman, E. L. Evans and Morton L. Mazer were elected to membership by transfer from other county medical societies.

September 28, 1944

Symposium on Hypertension:
The Clinical Problem of Hypertension—Alex W. Terrill, Dallas.
Classification of Hypertension (lantern slides)—Tinsley Harrison, Dallas.
Surgical Approach to the Management of Hypertension—C. C. Nash, Dallas.
Evaluation of Medical Treatment of Hypertension—A. W. Harris, Dallas.
Experimental Basis for Medical Views on Hypertension (lantern slides)—Arthur Grollman, Dallas.
Round Table Discussion.

Dallas County Medical Society met September 28, in the Medical Arts Auditorium, Dallas, with eighty-seven physicians present. The scientific program as given above was carried out. John M. Pace opened the round table discussion of the symposium on hypertension and exhibited lantern slides of pyelograms illustrating the relation between kidney disease and hypertension. Dr. Pace also displayed the chart of a patient after operation had been done on the kidney.

Resolutions of sympathy were adopted on the death of Dr. Abell D. Hardin of Dallas.

J. H. Black, chairman of the public health committee, gave a report following investigation by the committee of the matter of merging the city and county health departments of Dallas, as instructed. The committee had been directed to ascertain if such merger were feasible, legally permissible and would be advantageous to the community. Dr. Black reported that the committee had made a study of the effect of such mergers in other areas and the probable results of such merger in Dallas, and had also discussed the matter with members of the city and county governments. Where such mergers had been effected in other cities, there had been a definitely increased efficiency of operation. A merger of the city and county health departments could be effected in Dallas by passage of an enabling act which should meet with no opposition. Officials of the city and county consulted were enthusiastic regarding the possibility of such merger. The committee was of the opinion that the merger would result in greatly increased efficiency of operation of the combined departments. Therefore, the public health committee recommended that the Society go on record as favoring merger of the Dallas city and county health departments, and that a statement to that effect be forwarded to the city and county commissioners with a request for favorable action and offer of services of members of the Society. The motion was adopted and the Society authorized to take whatever steps were necessary to carry out the recommendations of the report. The Society also voted to ask the public health committee to continue its action in promoting the matter.

William Wesley Plasek, Charles Frank Pelphrey, Joe Lloyd Lipscomb, and Capt. Horace Glenn Waller were elected to membership on application.

President Carter called attention to the increase to $20 in State Association dues, and asked that the Society take some action on the matter. Following discussion it was voted that the president appoint a committee to give the matter consideration and to make recommendations at the next meeting. The following committee was appointed: Homer Donald, chairman; C. C. Nash and John G. Young.

Falls County Society

October 9, 1944

(Reported by J. W. Torbett, Secretary)

The Differential Diagnosis of Primary Syphilis in the Male (lantern slides)—Lt. Col. Douglas A. Decker, M. C.
A New Aid to the Diagnosis of Coronary Diseases—Major John B. Levan, M. C.

Falls County Medical Society met October 9, at the Falls Hotel, Marlin, with eighty-five physicians present. Members of the Society and the following were guests of Dr. N. D. Buie and staff of the Buie Clinic: General J. A. Bethea and staff of McCloskey General Hospital, Temple; medical staffs, Waco Army Flying School, and Blackland Medical Corps, Waco; staffs, Scott and White Clinic and King's Daughters Hospital, Temple.

A reception with refreshments was held from 6:00 to 8:00 p. m., followed by a dinner.

The scientific program as given above was presented by General J. A. Bethea and staff from McCloskey General Hospital, Temple.

The paper of Lt. Col. Douglas A. Decker, which was illustrated by lantern slides, summarized the points of differential diagnosis between the four venereal diseases: syphilis, chancroid, granuloma inguinale, and lymphogranuloma venereum.

Major John B. Levan discussed original work on a new aid to the diagnosis of coronary disease, illustrating his discussion with lantern slides and charts of electrocardiograms. The importance of a special laboratory procedure was emphasized.

The papers of Lieutenant Colonel Decker and Major Levan received general discussion from a number of the guests and members of the Society.

N. D. Buie was program chairman for the meeting. J. H. Barnett, Marlin, was appointed chairman for the November meeting.

Gray-Wheeler Counties Society

September 21, 1944

(Reported by H. L. Wilder, Secretary)

Peptic Ulcers as Seen in General Practice—H. E. Nicholson, Wheeler.
Gastro-jejunal Ulcer (lantern slides)—S. E. Stout, Fort Worth.
Clinical Cases—R. D. Falkenstein, Pampa.

Gray-Wheeler Counties Medical Society met September 21, with twelve members and visitors present. The scientific program as given above was carried out.

The clinical cases reported by Dr. Falkenstein included one of duodenal diverticulum in which the diagnosis was confirmed by roentgen study; a case of cerebrospinal meningitis in a baby one day of age, in which the diagnosis was confirmed by spinal fluid examination and autopsy; a case of meningococcic meningitis, and a case of recurrent duodenal ulcer following three years quiescence. Illustrative roentgenograms were exhibited.

The papers of H. E. Nicholson and S. E. Stout were discussed by W. Purviance, K. W. Pieratt, R. M. Brown, W. C. Barksdale and Colonel E. M. Smith of Pampa Air Field.

Jefferson County Society

August 14, 1944

(Reported by L. R. Byrd, Jr., Secretary)

Recent Advances in the Treatment of Syphilis—W. A. Smith, Beaumont.

Jefferson County Medical Society met August 14, at Lamar College, Beaumont, with I. T. Young, president, presiding. The scientific program as given above was carried out. The paper of W. A. Smith was discussed by C. H. Todd, W. D. Brown, P. T. Petit and B. B. Elster.

C. H. Todd called the attention of the Society to the establishment in Beaumont of a committee on rehabilitation of war veterans. He stated that in the organization there was an officer to deal with medical problems and he thought the Society should have a representative in the organization. President Young suggested that the matter be referred to the public health and legislative committee.

W. A. Smith stated that the rehabilitation committee would be glad to have the help of the Society, and he thought that the Society should have a representative associated with the committee.

President Young appointed a committee composed of J. D. Martin, W. A. Smith and Taylor Walker, to work with the Beaumont committee on rehabilitation of war veterans.

A letter was read from Lt. Col. L. C. Heare, M. C., AUS, a delegate from the Society to the annual meeting of the State Medical Association in May, returning a check for his expenses as delegate, with the request that these funds be used by the Society to help maintain historical records of members of the Society in military service. C. H. Todd moved that the donation be accepted from Colonel Heare, for the purposes stated, and that his suggestion be carried out. The motion carried.

Resolutions of sympathy were adopted on the death of Dr. B. F. Chambers of Port Arthur.

J. W. Torbett, Jr., was elected to membership by transfer from the Orange County Medical Society, and George Bialkin by transfer from the Rockland County Medical Society, New York.

September 11, 1944

(Reported by E. C. McRee, Secretary, *Pro Tem.*)

History and Present Use of Penicillin—Joseph M. Loewenstein, Port Arthur.

Jefferson County Medical Society met September 11, at St. Mary's Hospital, Port Arthur, with A. R. Autrey presiding in the absence of President I. T. Young. E. C. McRee served as secretary *pro tem* in the absence of L. R. Byrd, Jr.

The scientific program as given above was carried out. The paper of Dr. Loewenstein was discussed by H. E. Alexander, H. B. Eisenstadt, Max J. Knight and A. R. Autrey.

Hidalgo-Starr Counties Society

September 14, 1944

Postoperative Complications and Their Treatment—W. E. Whigham, McAllen.

Hidalgo-Starr Counties Medical Society and Auxiliary held a joint dinner at the Hotel Edinburg, September 14, with twenty-four members of the Society and Auxiliary present. Following the dinner, the organizations held separate sessions.

W. E. Whigham presented a paper on postoperative complications.

Rusk County Society

September 19, 1944

(Reported by C. A. Dawson, Secretary)

Rusk County Medical Society met September 19, and conducted a business session since the essayist scheduled to present a scientific paper was not able to be present.

The Society voted that an effort should be made to secure the release of Dr. J. E. Ross from the armed services to return to Henderson, his home before entering the service, where he is needed for medical care.

President Watkins appointed W. G. Carathan to prepare a paper for the next meeting.

J. A. Birdwell reported an obstetrical case in which it had been necessary to replace a hand and foot, following which delivery was completed with forceps.

Tarrant County Society

October 3, 1944

(Reported by X. R. Hyde, Secretary)

Newer Theories as to the Causes of Cancer—May Owen, Fort Worth.

Medicolegal Testimony in Malignancy—John J. Andujar, Fort Worth.

Advances in the Treatment of Cancer—F. L. Snyder, Fort Worth.

Tarrant County Medical Society met October 3, with thirty-one members present. The scientific program as given above was carried out.

The paper of F. L. Snyder was discussed by May Owen, John J. Andujar and C. C. Garrett.

T. W. Black, Fort Worth, and Holman Taylor, Jr., now serving residencies at the University of Michigan Hospital, Ann Arbor, were elected to membership on application.

Resolutions of sympathy were adopted on the death of Mrs. Emma Brown, mother of Dr. Arthur Brown.

Harold M. Williams, director of public health and welfare, Fort Worth, announced that Dr. Walter Wilkins of U. S. Public Health Service, would present a number of cases of nutritional deficiencies before members of the Society, Fort Worth Dental Society and nurses on November 10. He urged that members attend the meeting.

Frank Schoonover announced that Dr. Guy C. Randall, McCloskey General Hospital, would speak before the Tarrant County Society for Mental Hygiene at the Hotel Texas, October 10, and invited members of the Society to attend.

Tom Green Eight County Society

October 2, 1944

(Reported by V. E. Schulze, Secretary)

Lung Abscess: Case Report—W. C. Brown, Sanatorium.

Pulmonary Blastomycosis: Case Report—H. C. Samuels, Baytown.

Tom Green Eight County Medical Society met October 2, in the Children's Building of the State Sanatorium, with Dr. J. B. McKnight and staff as hosts. Twenty-one members and visitors were present.

Following a dinner, a business and scientific session was held with J. Marvin Rape, president, presiding.

W. C. Brown presented the clinical protocol of a case of lung abscess and reviewed relevant literature on annular chest roentgen shadows.

H. C. Samuels reviewed the record and autopsy findings in a case of pulmonary blastomycosis. The case was discussed by W. D. Anderson, A. L. Lewis, W. C. Brown and H. C. Samuels.

Betty Cooper and G. N. Irvine, Jr. were elected to membership on application.

F. T. McIntire moved that the by-laws of the Society be amended to read as follows: "The annual dues for the Society shall be ten dollars ($10.00) additional to the State Association assessment per capita membership and shall be payable on January 1 of each year. Any member who shall fail to pay his annual dues by April 1, shall be held as suspended without action on the part of the Society. A member suspended for non-payment of dues shall be restored to full membership on payment of all indebt-

edness. Members more than one year in arrears shall be dropped from the roll of members."

The motion to adopt the amendment was seconded by R. L. Powers, and after discussion by R. E. Windham, W. S. Hixson, W. C. Brown, A. L. Lewis, H. C. Samuels and J. B. McKnight, the amendment was adopted.

The secretary read that part of the By-Laws pertaining to intern members, and providing that interns and residents who are not in private practice shall be assessed $4 per capita, of which amount $3 shall be for subscription to the TEXAS STATE JOURNAL OF MEDICINE and $1 for medical defense. The concensus of opinion expressed was that this amendment was applicable to resident members of the Sanatorium staff.

Fourth District Society

September 25, 1944

(Reported by V. E. Schulze, Secretary)

The Fourth District Medical Society held an annual session September 25, in the Crystal Ballroom of the Hotel Cactus, San Angelo, with F. T. McIntire, president, presiding. Seventy-nine physicians attended.

The Reverend George C. Baker, Jr., pastor of the First Methodist Church, San Angelo, gave the invocation.

Mayor Harvey H. Allen, San Angelo, welcomed members of the Society and visitors to the city.

The following scientific program was presented by members of the clinical faculty of the Southwestern Medical College, Dallas:

Newer Practical Aspects of Endocrinology—Arthur Grollman, Professor of Experimental Medicine.
Management of Obstetric Hemorrhage—W. F. Mengert, Professor of Obstetrics and Gynecology.
Early Ambulation—John V. Goode, Professor of Surgery.
Current Modalities in Therapy—Donald Slaughter, Professor of Pharmacology.

At the conclusion of the scientific meeting, a business session was held, and the following officers were elected for the ensuing year: president, V. E. Schulze, San Angelo; vice-president, H. B. Allen, Brownwood; and secretary, J. M. Horn, Brownwood.

The Society voted to accept an invitation extended by B. M. Shelton of Brownwood to hold its next meeting in that city.

After the conclusion of the business session, a reception for members of the Fourth District Medical Society and Fourth District Auxiliary was held in the English Room of the Hotel Cactus, with the Tom Green Eight County Medical Society as hosts, represented by W. E. Schulkey, Leon Hutchins and R. L. Powers.

At 7:45 p. m., members, guests, visitors and their wives reassembled in the Crystal Ballroom for a banquet, with S. E. Thompson of Kerrville, presiding as toastmaster. The San Angelo Lions' Club Cowboy Band provided music under the direction of Mr. Jake Houston. On this occasion, C. S. Venable, San Antonio, chairman of the Public Relations Committee of the State Medical Association, spoke on the subject, "The Public Relations Program of the Texas State Medical Association."

R. A. Miller, San Antonio, then gave an illustrated talk on "The Threat of Governmentalized Medicine," both of which talks were well received and appreciated.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin. Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Hunt-Rockwall-Rains Counties Auxiliary held its first meeting of the fall in the home of Mrs. E. R. Hays, Greenville. New officers were installed as follows: president, Mrs. J. S. Cooper; first vice-president, Mrs. E. R. Hays; second vice-president, Mrs. W. P. Philips; third vice-president, Mrs. Will Cantrell; recording secretary, Mrs. H. W. Maier; publicity secretary, Mrs. Royal H. Kay; corresponding secretary, Mrs. W. B. Reeves; treasurer, Mrs. E. P. Goode; parliamentarian, Mrs. M. L. Wilbanks; historian, Mrs. J. C. Trentham.

An announcement was made of an essay contest to be sponsored by the Auxiliary for high school students.

Three new members welcomed into the organization were Mrs. Leslie Bush, Mrs. O. H. Trimble and Mrs. W. W. Looney.

The Fourth District Auxiliary met September 25 at the Hotel Cactus, San Angelo, with the Tom Green Eight County Auxiliary as hostesses. At a luncheon in the English Room, Mrs. Aubrey L. Lewis welcomed the guests. Mrs. G. L. Lewis gave the invocation.

Mrs. S. E. Thompson, Kerrville, State President, was the principal speaker. Mrs. Thompson reported a State Auxiliary membership of 2,300, with fifty-nine active Auxiliaries. She stressed the importance of auxiliaries contributed to the student loan fund maintained for the purpose of assisting worthy students that have completed at least their second year in a standard medical school.

She also emphasized the desirability of contributing to the library fund of the Auxiliary, which will greatly aid in the development of the Library of the State Medical Association of Texas rendering service to the entire medical profession of the state, and others interested in medicine.

Mrs. Thompson also called for support of the loan fund of the State Auxiliary, which is used to aid families of doctors where such aid is necessary.

She stated that twenty-four auxiliaries had given the following report on war activities: 7,277 hours in surgical dressings; 17,081 hours in nurses' aid; 7,000 hours in Grey Ladies service; 7,000 hours in welfare and day stations; 4,000 hours in canteen work; 16,000 hours in blood bank donor work; 1,000 hours in public health work; 15,000 hours in U. S. O. work.

The dominant feature of Mrs. Thompson's address was a warning to combat the effort of those who would socialize medicine. It is entirely probable that an effort will be made to pass the Wagner-Murray-Dingell bill pending in the Congress, and Auxiliaries were urged to work with county medical societies in opposing this legislation which would be hurtful to the public health.

Mrs. Thompson concluded her address with an appeal for a complete understanding of the objectives and purposes of the Auxiliary and the need for holding an intact, virile organization during the war.

During a business session, Mrs. Harlan Horney, vice-president of the Fourth District Auxiliary presided, and the following officers were elected: president, Mrs. Joe McFarland, Brownwood; first vice-president, Mrs. Grady Mitchell, San Angelo; second vice-president, Mrs. R. H. Cochran, Coleman; secretary, Mrs. H. L. Lobstein, Brownwood; publicity secretary, Mrs. T. V. Jennings, Winters; parliamentarian, Mrs. V. Schulze, San Angelo; treasurer, Mrs. Harlan Horney, San Angelo.

Entertainment features in connection with the meeting included vocal selections by Sgt. John Koepeke, accompanied by Mrs. A. W. McMillian.

After the luncheon, the guests were driven to Old Fort Concho and the beauty spots of San Angelo. Mrs. C. T. Womack, San Angelo, a member of the Tom Green Eight County Auxiliary and a director of the City Federated Clubs, was then hostess at a book review and tea at the Massey Club House.

In the evening members of the Auxiliary attended a dinner with their husbands in attendance on the meeting of the Fourth District Medical Society in the Crystal Ballroom. On this occasion, Dr. F. T. McIntire, district president, introduced Dr. S. E. Thompson of Kerrville, chairman of the Board of Trustees of the State Medical Association, who served as toastmaster.

Dr. C. S. Venable, San Antonio, chairman of the Public Relations Committee of the State Medical Association, delivered an address on the Public Relations program.

Dr. R. A. Miller, San Antonio, a member of the Public Relations Committee, gave an interesting illustrated talk on "The Threat of Socialized Medicine."

During the dinner hour, the Lions' Club Cowboy Band, dressed in typical western style, delighted the 102 guests with cowboy songs and music.

DEATHS

Dr. Carl Lovelace of Waco, Texas, died September 14, 1944, at his home, following an extended illness.

Dr. Lovelace was born February 6, 1876, in Crystal City, Missouri, the son of Thomas Jefferson and Sarah (Harrison) Lovelace. He came with his parents to Rockdale, Texas, at the age of seven. The family moved to Waco in 1891, where he received his early education in the public schools and the Academy Department of Baylor University, from which he was graduated in 1894. He received an A. B. degree from Baylor University in 1898. Immediately after his graduation he joined Roosevelt's Rough Riders of the United States Army, in San Antonio, and served with this famous organization in Cuba during the Spanish-American War. At the close of the war, he returned to Waco, and in 1899 attended the medical department of Vanderbilt University in Nashville, Tennessee, for one year. He then took a part-time position in the census office at Washington, D. C., and attended the George Washington University, from which he was graduated with an M. D. degree in 1902. He served an internship at George Washington University Hospital, at the completion of which he went with Surgeon General Gorgas to the Canal Zone, where he remained until the completion of the Panama Canal. In 1907, he completed a course in tropical medicine in the University of Liverpool, England, after which he became chief surgeon of the Madeira-Mamore Railroad in Brazil, for which position he was recommended by General Gorgas, because of his knowledge of tropical diseases. After construction of this railroad was finished, he accepted a position as surgeon with the Inca Mining Company in Peru. In 1913, Dr. Lovelace returned to Waco and entered the general practice of medicine.

DR. CARL LOVELACE

In 1918, Dr. Lovelace was commissioned a major in the medical reserve corps of the U. S. Army and during World War I was stationed at Fort Oglethorpe, Georgia. At the close of the war, he returned to private practice in Waco. In 1920, he was elected medical director of the Amicable Life Insurance Company, which position he held until his death.

Dr. Lovelace had been a member of the McLennan County Medical Society, State Medical Association and American Medical Association throughout his professional career in this state. He was a past president of the McLennan County Medical Society. He was a charter member of the Texas Club of Internists and had served that organization as president from February, 1940 to February, 1941. He was a member of the staff of the Central Texas Baptist Hospital and Providence Sanatarium. He was the author of a number of scientific articles, especially dealing with tropical diseases. In addition to his professional responsibilities Dr. Lovelace found time to take a prominent part in civic affairs of Waco. He served two years as a member of the City Commission of Waco, and at the time of his death, was chairman of the board of directors of the Waco Public Library. He was a member of the Baptist Church, and a Mason. Dr. Lovelace was held in the highest esteem by all who knew him. He was never too busy to assist anyone who sought his help. His life was full and useful and he carried on actively until his final illness.

Dr. Lovelace was married to Miss Lucile Hill of Waco in 1916. His wife preceded him in death one month and twenty-five days. He is survived by three sons, Lt. Richard Carl Lovelace, U. S. Navy, now stationed at Clinton, Oklahoma; Lt. William Hill Lovelace, U. S. A., Long Beach, California; and Henry Lovelace, a student at Baylor University, Waco.

Dr. Jesse Murrell Hanchey of Greenville, Texas, died at his home, August 2, 1944, of angina pectoris.

Dr. Hanchey was born November 22, 1885 in Simmsboro, Louisiana, the son of Mr. and Mrs. J. Monroe Hanchey. His academic education was received in Verda College, Verda, Louisiana. He then attended the Memphis Hospital Medical College, Memphis, Tennessee, for one year, following which he completed his medical education in the Chicago College of Medicine and Surgery, Chicago, from which he was graduated in 1909. He took special work in gynecology and abdominal surgery. He began the practice of medicine in Voth, Texas, where he was physician and surgeon for a large lumber mill. In 1910, he moved to Caddo Mills, Texas, where he continued to maintain an office after his removal to Greenville fourteen years ago. He was widely known and highly regarded in the area of the State in which he practiced.

Dr. Hanchey had been a member for many years of the Hunt-Rockwall-Rains Counties Medical Society, State Medical Association and American Medical Association. He was a member of the Phi Chi medical fraternity. He was a member of the Baptist Church, a Knight Templar and an Odd Fellow.

Dr. Hanchey is survived by his wife, the former Miss Florence Brodhead of Chicago; two sons, Gordon Billett Hanchey, Brookhaven, Mississippi, and Ray Becton Hanchey, Berkeley, California. He is also survived by a brother, J. Lee Hanchey, Austin; and two sisters, Mrs. J. J. Dietrich, Monroe, Louisiana, and Mrs. B. L. Bailey, Sterlington, Louisiana.

Texas State Journal of Medicine

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

A Reorganization of the Committee on Public Relations has recently been effected by the Board of Trustees. The occasion for the reorganization was the resignation of Dr. C. S. Venable of San Antonio, Chairman of the Committee since the last annual session and its originator during his term as President. The Board accepted Dr. Venable's resignation with regret. It will be recalled that the Committee was first headed by Drs. Merton M. Minter and Walter Stuck of San Antonio as co-chairmen, who were appointed by Dr. Venable and who with him worked untiringly and effectively in the all-important task of designing a far-reaching program of public relations which had for its first purpose, defeat of legislation in the U. S. Congress that would regiment medicine; and, second, to appraise the public of the true facts regarding medicine and medical care, to offset the spurious propaganda that has been insiduously used to bring about compulsory sickness insurance and the regimentation of not only the medical profession but the public as well, as far as medical care is concerned.

The Association is indebted to Dr. Venable for his devotion to the work of this Committee. He gave unstintingly of his time, talents and ability. The same may be said for Dr. Stuck, who also resigned from the Committee. Dr. Stuck made outstanding contributions to the work of the Committee.

The Board of Trustees appointed Dr. R. B. Anderson of Fort Worth, Assistant to the Secretary-Editor of the Association, Chairman of the Committee, and Dr. Frank A. Selecman of Dallas, to fill the vacancy created by the resignation of Dr. Stuck.

The following physicians who have heretofore functioned as members of the Committee throughout the state, have been retained as sectional advisers to the Committee: Drs. W. A. Smith, Beaumont; H. H. Cartwright, Breckenridge; Harry G. Heaney, Corpus Christi; Felix P. Miller, El Paso; R. J. White, Fort Worth; Phil A. Bleakney, Harlingen; Ruby Lowry, Laredo; Allen T. Stewart, Lubbock; V. E. Schulze, San Angelo; William Hibbitts, Texarkana; C. G. Catto, Waco; O. B. Kiel, Wichita Falls; Sam Key, Austin.

The Trustees further reorganized the Committee, in line with the by-law creating it, to a central committee of five members, as follows:

Dr. R. B. Anderson, Chairman, Fort Worth.
Dr. Merton M. Minter, San Antonio.
Dr. R. A. Miller, San Antonio.
Dr. Walter A. Coole, Houston.
Dr. Frank A. Selecman, Dallas.

As provided in the by-law creating the committee, both the Board of Trustees and Board of Councilors will serve as advisory groups to the Committee.

The Board of Trustees, in effecting the reorganization, sought to still further broaden the scope and activities of the Committee and added to its other advisory groups the Council on Medical Economics and the President and President-Elect of the Association.

In order to facilitiate the work of the committee and as a measure of economy, the office and headquarters of the committee were removed from San Antonio to Fort Worth. A staff is being assembled in Fort Worth to carry on the work of the committee, under the general direction of Mr. Jeff L. Reese, Public Relations Director of the State Medical Association now for many years. This was done so that the work of the committee might continue without interruption as to policy and procedure.

In order that the committee might be adequately and continuously financed, the House of Delegates voted a raise of the dues from $9 to $20 to provide sufficient money for a

[1]Deceased, September 19, 1944.

real educational and publicity campaign. This money could not, of course, become available until the beginning of the next Association year. In the meantime, the Trustees have financed the work of the committee by appropriations from money on hand which could be consistently diverted to the purpose. In addition to these funds, quite a respectable amount was voluntarily contributed by our members. The firm of Aniol and Auld of San Antonio, experts in publicity matters, served the committee until removal of the office to Fort Worth. The committee plans to secure expert advice of the same sort, more conveniently located as relates to the Central Office. We should like here to commend Aniol and Auld for their excellent work for the committee.

It is believed that the highly important service to be rendered by this committee will be facilitated somewhat by the removal of the office to Fort Worth, particularly in the matter of its coördination with the work of the various committees and councils of the Association, all of which center in the Home Office. Doubtless, also, the expectation of the Trustees that the service can be rendered somewhat more economically out of the Central Office, in that reciprocal arrangements with other members of the Association staff in the home office can be made, will be realized.

The appointment of Dr. Anderson as Chairman of the committee is doubtless more or less embarrassing to him because of the distinguished service of his predecessor in office, but those who are acquainted with Dr. Anderson and know of his service in every phase of the work of the State Medical Association, will have full confidence that he will succeed in the very important additional responsibilities thus placed upon him. He will doubtless enjoy the full support and confidence of not only the leadership in the Association, but the rank and file as well. He and his committee will appreciate suggestions from all sources, not only as to what should be done, but as well what, perhaps, should not be done.

At the suggestion of the Board of Trustees the central Public Relations Committee of five members, after careful deliberation and consideration of the activities of the committee to date, formulated a tentative program, which it thought it could prosecute successfully with the help of the entire machinery of the Association, including particularly the Sectional advisory group, the Board of Councilors and county medical societies. Again at the suggestion of the Board of Trustees, President Dr. Connally called a meeting of the Executive Council which met jointly with the Public Relations Committee and all of its advisory groups and officials at Fort Worth, December 3, at which time the tentative program of the committee was presented and was enthusiastically and unanimously endorsed.

A brief summary of the program agreed upon follows:

1. Monthly newsletters to each member of the Association conveying information (a) emphasizing matter previously published in the JOURNAL; (b) conveying confidential information not suitable for publication in JOURNAL; (c) conveying emergency information that should not wait on JOURNAL publication.
2. Emphasis on state rather than national legislation except as need exists, and in every instance the P-R Committee acting under direction of the State Association Legislative Committee.
3. There will be no regular releases to Texas newspapers. Instead news will be released to the public press only when considered of especial public reader interest, and then after having been prepared by a public relations expert. Two methods of releases will be employed, description of which is not considered necessary or desirable here. The matter of news releases will be under the special direction of Dr. Merton Minter of the Committee.
4. Plans have been made for better publicity than in the past, of all features of the Annual Session, which will be cordially received and approved by news services covering this important medical event each year.
5. At present no effort will be made to furnish health columns to Texas newspapers.
6. Packages will be furnished speakers on any public relations program, from the Library of the Association, particularly for use in combating the socialization of medicine. A speaker's portfolio, prepared and edited by Dr. R. A. Miller of the Committee, will be made available for the use of speakers over the state. Dr. Miller, with the help of other members of the Committee, will select material for the library packages and will select speakers for programs on request to the offices of the Committee, 1404 West El Paso Street, Fort Worth.
7. Radio stations throughout Texas will be furnished radio transcriptions on health subjects made available to the Committee by the Bureau of Health Education of the American Medical Association. Many Texas radio broadcasting stations are now using the transcriptions.
8. The purposes and objectives of the Committee will be discussed not only in connection with the Annual Report of the Committee to the House of Delegates, but before a General Meeting of the Association at the Annual Session, in order that members may be fully advised, and to secure the complete support of every member of the Association in a program to protect the American public and medical profession from Federal bureaucratic regimentation, and thus preserve the best in American Medicine while seeing to it that all classes of the public may be assured of adequate medical care at a price they can afford to pay.

Three Bills on Our Legislative Agenda, referred to briefly in an editorial in our last number, are published in full this month. They are the two bills requiring serologic blood tests, one premarital and the other prenatal, and the bill providing for the setting up of standard health units. It would appear desirable to print these bills because they comprise something new that has been added to our legislative program, and because our

Legislative Committee would like to know whether there are objections to any or all of them from the angle of the doctor at the bedside, and if so, what. Our readers are urged to give these bills at least the once over, and perhaps rather close study, and then if they feel something should be said about them, to communicate with the State Secretary, who will see to it that such communications are properly channeled.

The other two bills included in our legislative program heretofore announced, are amendments to the group of laws making up the so-called Sanitary Code. They are strictly technical, and merely bring the Sanitary Code up to date. They are too long to print in the JOURNAL. It is felt that the measures concerned do not deal with any subjects likely to be at all controversial, either as between ourselves, or as between ourselves and the public.

However, copies of each of the measures at the present time comprising our legislative program, including those pertaining to communicable diseases and sanitation, have been mailed to county society secretaries. They should be given study by the legislative committees of county medical societies, and perhaps should be discussed by the societies. The State Association Legislative Committee will need help in procuring the passage of even such meritorious and noncontroversial measures as these. An informed membership can render better help than an uninformed membership. This help can and should begin immediately, as advised editorially in the last number of the JOURNAL. Reprints of the editorial referring to the matter appearing there have been freely circulated, and not only county medical societies but the Woman's Auxiliary have been asked to help convince members of the Legislature of the necessity of the passage of these bills. They are all in the interest of the health and welfare of the public, and of interest to the medical profession only to the extent that they are in line with progressive medicine.

The Prompt Payment of Dues will be appreciated by all concerned in their collection, beginning with the county medical society secretary. We know that the State Secretary will be grateful, and the county secretaries should be equally so.

The State Medical Association has, pursuant to mandate from its House of Delegates, expanded its activities in every department, with emphasis on public relations. Additional personnel is badly needed in the Central Office, and is being secured slowly and with effort, but never-the-less secured. Current expenditures must, in the natural order of things, be increased along with the additional personnel.

Because of the situation as here briefly mentioned, the House of Delegates at its last meeting increased the dues from $9.00 to $20.00 per year. Dues for Honorary and Intern members remain as before, namely $4.00. Military members are required to pay $1.00, to cover the cost of Medical Defense. Subscription to the JOURNAL is included in all memberships except Military. It is felt that it would be included there except for postal regulations and the federal requirements in the matter of conservation of paper. Free copies of the JOURNAL are taboo, except under very special circumstances.

As a matter of fact, and following the calculations set up in these columns last month, the average amount received per member will be $14.00, as against $7.00 under the old order. It is extremely doubtful whether the increased dues will more than take care of the increased activities of the Association, but the Board of Trustees and other officials of the Association are watching developments and will know what to recommend in that connection by the time the House of Delegates meets again in the spring. If the money is not needed, the dues will, no doubt, be reduced. If the money is needed, there will probably be no decrease. In any instance, the whole matter is in the hands of the House of Delegates, and each county society is entitled to representation in the House of Delegates, upon a membership pro rata basis.

It will be remembered that the smaller county medical societies, in particular, are greatly handicapped by depletion of members incidents to the war. That means that meetings will be difficult to hold, and that organization will in many instances be on a below par basis. Secretaries are going to need a lot of help, particularly in the matter of collecting dues. If members will simply write checks for their dues and mail them to their respective county secretaries, they will be helping mightily.

The State Secretary is anxious to expedite the collection of dues, not altogether because the money is needed, but because there is much to be done by way of receipting and bookkeeping. With a limited office force, the peak of this load is difficult to handle, and it must be handled in a minimum of time.

Again let us urge that our members pay dues, pay them promptly, and without waiting to be asked by their respective county society secretaries to do so.

Detail Men and the Busy War-Time Doctor.—In former years, detail men of the various distributors and manufacturers catering to the medical profession, were numerous

and, of necessity, most persistent. While there was and still is a legitimate and proper field for the activities of detail men among practicing physcians, the fact remains that there have been those whose activities could have been dispensed with to the advantage of at least the medical profession. Too many of the detail men sought to tell the doctor what to do, rather than what their products could help him to do, and why. Too many of them passed out misinformation, directly and indirectly, and nearly all of them interfered with the practice of the doctor. Time has changed things somewhat, and of recent years the detail men have, as a rule, modestly presented their claims for consideration, and those of them at least who represent approved products have been cordially received.

However, war-time conditions have intervened to make a difference. It is difficult for the doctor to see even the sick people who are depending upon him for help. He certainly does not have time to see detail men. The situation is by way of being a dilemma. On the one hand, the doctor really needs to know about at least the newer products, while on the other hand he does not have time to find out about them through personal interviews. All of which leads to the suggestion, to concerns desiring to reach the physician, that they advertise in the medical journals physicians read, particularly those journals which belong to them, as the TEXAS STATE JOURNAL OF MEDICINE belongs to the physicians of Texas. A related suggestion is that the doctor make it his business to look over the advertising pages of their medical journals, particularly his own medical journal, and get the information which otherwise detail men would give them, either independently of, or in conjunction with any such advertising campaign being conducted in the interest of their representative enterprises. Such a procedure would accomplish something else of importance. It would shut out the representatives of manufacturers and distributors of products which are not recognized as either professionally or ethically proper. That would be something! No such advertising is acceptable to at least the TEXAS STATE JOURNAL OF MEDICINE.

CURRENT EDITORIAL COMMENT*

Physical Medicine On the Move.—Physical medicine—that branch of medicine employing certain physical agents and techniques for diagnosis and treatment—has recently received new stimulus for encouragement. Physical medicine may now develop to a point which may justify it as a worthy medical specialty with its own certification committee. Several factors have contributed to the unusual growth of this field of medicine, which is essentially appled biophysics.

At the 1944 meeting of the American Medical Association the name of the Council on Physical Therapy was changed to the Council on Physical Medicine. The adoption of the new term "physical medicine" over the less generic "physical therapy" is in keeping with the present day concept of the scope of this field of medicine. Physical medicine is the more inclusive term and as now defined embraces physical therapy, occupational therapy and the employment of physical agents for diagnostic purposes as well as for treatment.

More specifically, physical medicine, which ramifies into many branches of medical practice, includes the employment of the effective properties of light, heat, cold, water, electricity, massage, manipulation, exercise, and mechanical devices for physical and occupational therapy in the diagnosis and treatment of disease. The use of electricity for studying the reaction of degeneration, or the use of cold water for studying the blood pressure response (pressor test), represent ways in which physical agents are utilized in diagnosis. Physical medicine not only includes the employment of physical procedures for diagnosis and treatment but also for prevention of disease, especially of joints and muscles. It embraces occupational, recreational, and physical therapy, spa therapy, climatology and hydrology. The employment of physical agents in the field of industrial medicine, geriatrics, treatment of arthritis, treatment of diseases of the blood vessels, and treatment of the nervous system, is becoming increasingly important.

Physical medicine represents the chief application of physics to medical problems and of course is to be correlated with premedical training in physics and preclinical preparation in biophysics, anatomy, physiology, and pathology. An orientation course in the applications of physics to medicine was recently undertaken for first year medical students at the University of Texas School of Medicine, Galveston. The results of the effort were encouraging in indicating the importance of such preclinical preparation for successful instruction in the clinical aspects of physical medicine.

It has been said that the chief medical benefit derived from World War I was the initial acknowledgment of the value of phys-

*This department of the JOURNAL presents editorial comments on current items pertaining to the science, art and practice of medicine, contributed by members of the State Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the State Medical Association of Texas to submit such discussions for this department. The discussions should not be more than 500 words in length.

ical medicine in wartime rehabilitation. The success of physical aids in the restoration of the disabled and injured during and after that war, together with subsequent development of many new physical-treatment agents, such as diathermy, ultraviolet irradiation, and whorl-pool baths, gradually brought recognition of the value of physical medicine prior to the current global conflict. The severe battle injuries of this war have again focused attention on physical medicine and have greatly accelerated its advancement.

Among some of the newer forms of physical treatment employed today are: hypothermia and hyperthermia, ultraviolet irradiation for air sterilization, electric stimulation of muscle in peripheral paralysis, electric shock treatment in depressive mental conditions, iontophoresis for stimulation of capillary circulation, more modern methods of exercise and reconditioning and the correlation of occupational therapy with physical therapy.

The value of physical techniques for the early treatment of war disabilities has been reaffirmed by the military services. Physical therapy equipment has been moved from base and general hospitals to station and field hospitals, and even far into the jungles. The problems of wartime rehabilitation have increased the need for further knowledge of physical medicine on the part of all persons who treat the sick and the disabled. Intensive training programs have been launched to provide adequate staffs for physical medicine for both our civilian and armed services, but the demand for trained physicians and technicians has greatly exceeded the supply.

The remarkable development of physical medicine within the past few years is not entirely due to the war. Its growth has been accelerated also by the simultaneous development of various organized groups of medicine. Among these are: the Council on Physical Medicine of the American Medical Association, the Committee on American Health Resorts, the National Foundation for Infantile Paralysis, and the National Research Council. All of these have recognized the need for further study of the value of physical agents and techniques in medicine and have fostered and encouraged basic and clinical research in this field.

Quite recently physical medicine aroused great interest when the famous statesman and philanthropist, Mr. Barnard Baruch, son of Dr. Simon Baruch, the first scientific practitioner of physical medicine in America, appointed a committee to survey the field and to prepare a report on a program for the further development of this medical specialty.

The survey committee consisted of such outstanding medical educators as Dr. Ray Lyman Wilbur, chancellor of Stanford University, chairman; Dr. William T. Sanger, President of the Medical College of Virginia, vice-chairman; Dr. Frank H. Krusen, head of the section on physical medicine at the Mayo Clinic, director-secretary; and five well known teachers and practitioners of physical medicine: Charles Behrens, Carl Comstock, John Coulter, Kristian Hansson, and Benjamin Strickland. This committee, working with eight sub-committees, which, in turn, consulted more than 400 clinicians and scientists, turned in a remarkable report, recommending the organization of a central office to co-ordinate and promote teaching and research in physical medicine, the establishment of teaching and research centers for this specialty at certain interested and well qualified medical schools, the establishment of fellowships in physical medicine, the promotion of the teaching of physical medicine in all medical schools, the preparation of reports by the committee, and the promotion of wartime and post-war physical rehabilitation.

Widespread approval of the report of the Baruch committee was immediately given; Mr. Baruch followed by making generous gifts in support of the program to various medicial schools for a ten year period. These donations, varying from a few thousand to four hundred thousand dollars, and now totaling a million and a half dollars, started a new era in physical medicine at a most appropriate time. The work of the Baruch Committee focuses attention again on the valuable contributions which physical agents and techniques can make to civilian and military medicine.

Based on the encouraging events of the near past, the future of physical medicine appears promising. The results of basic and clinical research should convince the medical profession, and the disabled and their families, that physical medicine is an important part of medical care and must be included in all hospitals, whether it be for peacetime or wartime service.

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W. A. Selle, Ph. D.
The University of Texas School of Medicine, Galveston.

TROPICAL DISEASES IN TEXAS IN THE POSTWAR ERA

JAMES A. GREENE, M. D.
AND
WILTON M. FISHER, M. D.
HOUSTON, TEXAS

A great deal of concern has arisen regarding the possibility of diseases now endemic in the tropics being imported and establishing themselves in this country following the war. The diseases which are more likely to be brought into this country are those characterized by long incubation period, tendency to relapse or those of chronic nature. Diseases of acute nature without these specific characteristics will probably not be seen except as a result of air transport during the prodromal period.

The introduction of "tropical" diseases may be accepted as a certainty and as a result we must be prepared to diagnose and care for new and unfamiliar diseases. The appearance of such diseases among returned military personnel does not mean that all of them will become established here and will be additions to the list of diseases in Texas. The majority of the chronic or slowly-developing diseases, whose importation we fear, are due to animal parasites. As such their establishment depends directly upon the presence of vectors such as insects, ticks and snails or animal reservoirs. In the areas where these diseases are endemic, these necessary vectors and reservoirs are restricted to a particular or small group of species. If the vectors are imported into this country or if the parasites can find suitable substitute vectors or animal reservoirs we can expect extension of these diseases beyond their immediate victims.

It appears extremely unlikely that dangerous vectors, infected or otherwise, can enter the continental United States under the present conditions of careful inspection of all imported materials, examination of returning personnel and disinsectization of all incoming craft.

The possibility that the parasites can find suitable substitute vectors or reservoirs in our own animals, ticks, snails or insects appears remote. Most of these parasites have been introduced, in the past, into our subtropical zone without establishing themselves. With the return of a greater number of cases, and with more widespread dispersal in this country we must reserve our opinion as to their establishment until a later date.

TABLE 1.—*Acute diseases which are not likely to be brought into Texas.*

Disease	Nature	Relapses or Carriers	Transmission	Reservoir	Geographical Distribution
Cholera	Acute	2 Months	Fecal contamination food or water	None	Asia
Yellow Fever	Acute	None	(Mosquito) Aedes aegypti	? Animal (Opossum)	Africa, South & Central America
Rift Valley Fever	Acute	None	?	Sheep Cattle	Africa
Tsutsugamushi Fever	Acute	None	(Mite) Trombicula akamushi	Field Mice	Japan
Scrub Typhus	Acute	None	? Mite	Rodents	Malay Southwest Pacific
Australian Q Fever	Acute	None	(Tick) Haemaphysalis humerosa	Bandicoot	Australia
Epidemic Typhus	Acute	None	(Human Louse) Pediculus humanus	None	Europe, Africa, South America Asia
Fievre boutonneuse	Acute	None	(Common Tick) Rhipicephalus sanguineus	?	Mediterranean

The diseases will be divided, for the purpose of discussion, into those of acute nature which are not likely to be introduced into Texas, those diseases which are already present in the state, those which are likely to be introduced into this area and those having a possibility of becoming endemic or epidemic.

The diseases listed in table 1 are of acute nature and are not likely to be encountered in this state. The chief danger lies in the possibility of release of subclinical or prodromal cases, or the importation of infected vectors. Mild cases of yellow fever are known and might be overlooked in the rigid inspection and brought in by air transport. The extreme care against importation of insect vectors by the authorities makes it improbable that the infected vector, Aedes aegypti, will be brought into this country. The fact that yellow fever has been present in this country and has disappeared is an argument against the danger of its return as

Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 20, 1944.

an endemic disease. The Public Health Service is prepared to direct a vigorous vaccination and anti-mosquito campaign in any region within twenty-four hours after a case of yellow fever is recognized.

Cholera has been epidemic in this country also without establishing itself. There is a remote possibility that it may be imported, but the chances of its return to even minor epidemicity are slight.

The diseases listed in table 2 are those which are known to be present in Texas. Of these malaria, bacillary dysentery and amebiasis are those which are apt to cause us concern. Some of our troops have been exposed extensively to malaria and the nature of the disease makes it almost certain that many of them will harbor the organisms in a latent state with relapse after they return home. Some of the strains of plasmodia now being brought into this country are apparently different immunologically from these present here, but the clinical manifestations are no different for the species of the organism. There is some danger that our Anopheles mosquitoes may be better vectors for these new strains than they are for our present strains of the plasmodia. If this be true, this may cause an epidemic of malaria. The cause of the numerous relapses of malaria and the high morbidity among our return troops is still a matter of speculation. The effect of repeated multiple strain infections and that of suppressive treatment under such conditions have not been evaluated definitely. The types of malaria encountered will depend to a certain extent upon the ability of the different species of the plasmodia to persist in the latent state and also upon the tendency to relapse. Plasmodia falciparum may remain latent for as long as a year, then show repeated relapses. Infections with this species are prone to exhibit bizarre manifestions of cerebral or gastroenteric types during the onset or during the relapses. It will be advisable that we become acutely aware of these unusual manifestations of this species of malaria. Plasmodia vivax may remain in the latent state as long as three years and it has the greater tendency to relapse of any of the four species. Most of the relapsing malaria in our troops returning from endemic areas has been of this type. Plasmodia malariae may persist in the latent state for as long as fifteen to twenty-five years, but its tendency to relapses is not as great as is that of vivax. The possibility that Plasmodia ovale will be encountered also should not be overlooked.

TABLE 2.—*Diseases which are known to be present in Texas.*

Disease	Nature	Relapses or Carriers	Transmission	Reservoir	Geographical Distribution
Malaria	Chronic Acute	Yes	(Mosquito) Anopheles	Man	Througout tropical & subtropical areas
Dengue	Acute	None	(Mosquito) Aedes aegypti	None	Asia, Africa North & South America
Bacillary Dysentery	Acute Chronic	Yes	Fecal contamination food & water Fly	Man	World-wide
Amebiasis	Acute Chronic	Yes	Fecal contamination food & water	Man	World-wide
Relapsing Fever	Acute Subacute	Yes for several weeks	(Tick) Ornithodoros Turicata	None	World-wide
Endemic Typhus	Acute	None	(Rat flea) Xenopsylla cheopis	(Rat) Rattus norvegicus	World-wide
Leprosy	Chronic	Yes	?	Man	World-wide
Bullis Fever	Acute	None	(Tick) Amblyomma Americanum	?	Texas ? Mexico

Bacillary dysentery is known as a war disease and its incidence has not decreased in spite of the tremendous advances in sanitation. The disease may become chronic. Carriers are not uncommon and in such instances the organisms are discharged sporadically. The greatest concern is the possibility of the return of considerable numbers of carriers of the highly toxic Shiga strains. These strains now occur commonly only in the tropics of the Old World and in Asia. The use of the sulfonamides will probably reduce the incidence of chronic cases and carriers, but will not completely eliminate such cases.

The chances that amebiasis will increase is problematic. The idea is becoming prevalent that the manifestations of amebiasis appear only when secondary bacterial infection develops. If this be true, the return of our men from scattered areas over the globe may bring into the state many types of intestinal bacteria foreign to the civilian population of this region, and thereby may produce

manifestations of amebiasis in many civilians who are now subclinical carriers.

The diseases listed in table 3 are the important ones which may be introduced into Texas. Plague and American Q fever are not likely to be introduced into the state as a result of men returning from the war. These diseases are already endemic in the United States and only further geographical extension and recognition of initial human cases remain to keep these diseases off the list of endemic diseases of Texas.

African trypanosomiasis, if encountered, will be found in those men who have been stationed in tropical Africa. It has not shown any tendency to extend beyond the range of those flies which transmit it, even in Africa. These flies are not present in the United States and cases observed here, after obtaining their infection in Africa, have shown no ability to spread.

Many triatomas (kissing bugs) in Texas have been found to be infected with trypanosomes[3] identical with the South American T. cruzi. These bugs are to be found in the wild and in human habitation. The common animal reservoirs of the South American trypanosomes, the armadillo and the opossum, are both common in this state. It has been demonstrated that small rodents are naturally infected. The recognition of human cases, however, has not been reported. Human cases may result from our own strains or from the importation of infected humans from Central and South America.

Leishmaniasis may exist in either of two forms—visceral (kala azar), or as cutaneous lesions. The two forms are found throughthe tropics and subtropics of the entire world. The incubation period may be fairly long and the introduction of the human cases of the visceral type is a possibility. Dr. Charles D. Stewart[2] of Corpus Christi, Texas, observed a case of cutaneous leishmaniasis in a Mexican boy who had not been out of the state. The chances of introduction with establishment appear very good. One and probably more species of the vector phlebotomus are known to be present in the state. The species known to be present is phlebotomus diabolicus, which is said to be a vicious feeder on man.

Among the worm infections those due to the blood fluke, the schistosomes, are apt to present the more serious problems. Lung fluke infestations are now being recognized in troops returning from certain Pacific fronts, but the occurrence of this disease and diseases caused by flukes other than schistosomiasis in our troops will be attributed to a breakdown of dietary discipline. Spread of the lung fluke in this country is not expected. The cercariae of the blood fluke, on the other hand, are discharged into the water from the snail and attack man. Swimming, bathing,

TABLE 3.—*Diseases which may be brought into Texas.*

Disease	Nature	Relapses or Carriers	Transmission	Intermediate Host	Reservoir	Geographical Distribution
African Trypanosomiasis	Chronic	— —	(Tsetse fly) Glossins	— —	Antelope Cattle Sheep	Africa
South American Trypanosomiasis	Chronic	— —	(Kissing bug) Triatoma	— —	Armadillo	South & Central America
Leishmaniasis	Chronic	— —	(Sandfly) Phlebotomus	— —	Dog ?	Mediterranean Asia, South & Central America
Schistosomiasis	Chronic	— —	Infected water	Snail	— —	Africa, Far East, South & Central America & Caribbean Area
Filariasis	Chronic	— —	Several species of mosquitoes	Mosquitoes	— —	South and Central America, Africa & Far East
Onchocerciasis	Chronic	— —	(Small black flies) Simulium	Simulium	— —	Central America & Africa
Loiasis	Chronic	— —	(Biting fly) Chrysops	Chrysops	— —	Africa,
Dracontiasis	Chronic	— —	Infected Water	Cyclops	— —	Africa India Near East West Indies
Plague	Acute	None	(Rat flea) Xenopsylla cheopis	— — —	Rodents	Africa, Far East, South America
American Q Fever	Acute	None	(Wood tick) Dermacentor andersoni	— — —	— —	Rocky Mountain Area

or walking through infected water results in human infection. So far as is known, no snail of the United States will serve as intermediate host for the blood flukes, but one of the flukes has become established in Central and South America and in the Caribbean areas. Slaves with schistosomiasis undoubtedly were brought into this country, but the disease never became established.

The group of diseases included under the term filariasis are Wucherera bancrofti, Wucherera malayi, Dipetalonema perstans, Mansonella ozzardi, Loa Loa, Onchocerca volvulus and Dracunculus medinensis. They are due to certain nematodes which invade the connective tissue, lymph and viscera of the body. Microfilaria appear in the blood stream of the first five of these, whereas the microfilaria of Onchocerca volvulus are found in the skin, eye and cutaneous nodules. The microfilaria or larvae of Dracunculus medinensis do not occur in the tissues of man, but are extruded from the female through an ulceration of the skin. It is well known that some of our troops have already become infected with Wucherera bancrofti and/or malayi. It is thought by some that the mosquito of the genus Mansonia is the only vector of Wucherera malayi and, therefore, that this species will not become endemic in this country. Wucherera bancrofti, on the other hand, is transmitted by a great variety of mosquitoes and nothing is known about the infectibility of some of the mosquitoes of this state. These two diseases may be real threats to the state in the post-war era. This threat may not be as great as it appears on the surface. Wucherera bancrofti was very likely brought into this state because it has been present in the vicinity of Charleston, South Carolina, for many years, but it has not shown any tendency to spread, and recently it appears to have about died out.[1]

Onchocerca volvulus may also become endemic in the state. It has shown a tendency to spread northward from Central America, and although the known vector is not found in this country, other species of the blackflies, Simulium, are present in this area and their infectibility is not known. The great increase in the traffic between Texas and Central America will undoubtedly cause infected individuals to be brought into the state.

The possibility that Dipetalonema perstans, Mansonelia ozzardi and Loa loa will become endemic in Texas cannot be eliminated until the possible vectors are thoroughly investigated. The first two of these are transmitted by the Diptera of the genus Culicoides and the latter by Chrysops. Biting flies closely related to both of these vectors are fairly numerous in the state. It appears reasonable to assume that all of these diseases will have some chance of becoming endemic in the state, provided a sufficient number of cases are introduced and our biting flies can transmit the organisms.

Dracontiasis is transmitted to man through a small crustacian, Cyclops, which man ingests in his drinking water. It has not been ascertained whether or not Cyclops in this region will act as the intermediate host of dracontiasis. The worms inhabitate the tissues of man and the pregnant female finds her way to the subcutaneous tissues. An ulcer forms and the larvae are extruded. Some of these enter streams and ponds where they infect Cyclops. They remain in the Cyclops until this small organism is ingested by man in his drinking water.

SUMMARY

The "tropical" diseases which are not likely to be brought into Texas following the war, those already here, those most likely to be introduced into the state and those most likely to become endemic, are discussed.

The data indicate that diseases of acute nature without prolonged incubation period, relapses or carrier states are not likely to be brought home by our returning troops.

The diseases most likely to be introduced are African trypanosomiasis, South American trypanosomiasis, leischmaniasis, schistosomiasis, filariasis, onchocerciasis, loiasis, dracontiasis, plague and American Q fever.

South American trypanosomiasis, leischmaniasis, schistosomiasis, filariasis, onchocerciasis, loiasis and dracontiasis are the ones most threatening in regard to becoming endemic.

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Dr. Greene—Bayor University.
Dr. Fisher—509 Lincoln.

ABSTRACT OF DISCUSSION

Dr. M. D. Levy, Houston: In an extremely sane and convincing manner Drs. Greene and Fisher have "debunked" the undue apprehension that has arisen over the possibility of the occurrence of strange tropical diseases in Texas as a result of the return to this country of service men infected in the tropics. Many of the diseases noted have occurred in this country, and for lack of proper hosts or because of measures undertaken to combat them, the diseases have all but disappeared; to repeat what the essayists have said, we can recall that yellow fever, plague, and filariasis have formerly been of some concern but are now practically non-existent in the United States.

Formerly, immigrants found to be infected with ova of clonorchis Sinensis, one of the liver flukes, were not admitted to the United States. A study of

the life cycle of this parasite has shown that there is no likelihood of the infection spreading in this country, and the regulation has been rescinded. The mite-born rickettsial diseases such as typhus, scrub typhus and the like, need cause no great alarm. The report of the Scrub Typhus Commission, headed by Dr. Francis G. Blake of Yale University, has shown that such simple procedures as burning or clearing the high grass in endemic areas and raising the sleeping quarters some distance above the ground, have eliminated further infections in a previously highly endemic area. Here in Texas, in 1930 and 1931, Drs. Shelmire and Dove of Dallas, reported their studies on the rat mite—Liponyssus bacoti—as a vector of typhus.

While there is no need for alarm over the possible outbreak of unusual tropical diseases during the postwar period, the paper of Drs. Greene and Fisher fulfills a most worthwhile purpose. Too few of our practitioners have a working knowledge of tropical diseases, and the unknown is always a fearsome realm. Presentations such as this one under discussion will go far toward dispelling that fear and preparing Texas physicians to properly handle all cases of tropical diseases that may occur in our postwar era.

Dr. George M. Jones, Dallas: The importance of preventive medicine, public health, and sanitation in the prevention of tropical diseases should be emphasized. Those of us who have had experience in noncombat areas of the tropics have had ample opportunity to demonstrate that by common sense preventive medicine measures, such tropical diseases as malaria, amebiasis and the dysenteries may be almost completely eliminated. If proper mosquito and fly control measures are used after the war, tropical medicine problems should offer us no particular difficulty.

Col. Alexander Marble, M. C., Harmon General Hospital, Longview: It may be of interest to state briefly our experience at Harmon General Hospital with a group of approximately 140 soldiers who have been evacuated from the South Pacific to the United States because of suspected filariasis. These soldiers spent from five months to almost two years on tiny islands on which filariasis caused by Wuchereria bancrofti is endemic. They had been evacuated upon the appearance of the earliest signs of the disease which were a generalized adenopathy, chiefly inguinal, thickening and tenderness of the spermatic cord, usually the left, and slight swelling of the scrotum. Only a few of the men had had definite attacks of lymphangitis and in these the process had been mild. No case of true elephantiasis had occurred. On arrival at our hospital the great majority of the men were in good physical condition. Studies revealed microfilariae in the blood in only two instances (such had been demonstrated overseas in one other man). Intradermal tests using antigen prepared from Dirofilaria immitis and Setaria equinus gave positive reactions in slightly over 60 per cent of the cases. Complement fixation tests using an antigen prepared from Dirofilaria immitis gave positive findings to approximately the same degree. From clinical findings it seemed that approximately 75 per cent of the men had had filaria infection; included in the group evacuated were a certain number who probably never were so affected. During their stay at Harmon General Hospital only 5 of the men had attacks of lymphangitis, which attacks were short-lived and affected an upper extremity in all instances but one. All the patients have been, or are being, discharged to duty with service limited to areas in which filariasis is not endemic. The public health hazard of the presence of these men in the United States is considered negligible because of the extreme mildness of the condition, the great improvement to date and the fact that in only 3 patients were there at any time microfilariae demonstrated in the blood. Now that the men have been removed from the endemic area there is justifiable hope that the disease will gradually die out as, in fact, it seems to be well on the way to doing already.

REPORT ON 1943 OUTBREAK OF POLIOMYELITIS

S. W. BOHLS, M. D., AND J. V. IRONS, Sc. D.
AUSTIN, TEXAS

The reported incidence of poliomyelitis in Texas varies considerably from year to year. The incidence of poliomyelitis was relatively low throughout the spring and summer of 1942, but late in October increasing numbers of cases were reported, and this continued until late in December. One-third of all cases reported in the state in 1942 were reported from Bexar and Nueces Counties, including the cities of San Antonio and Corpus Christi, respectively. An excellent report on the outbreak at Corpus Christi was prepared by Coleman[1], while Cox[2] has commented on the possible relationship of poliomyelitis late in 1942 to the situation in 1943. The 1,274 cases reported in 1943 more than doubled the total for 1937 when the previous highest incidence was reached. If a 5 to 10 per cent fatality rate be taken as a reasonable estimate, there should be 10 to 20 cases reported for each death. Actually over the past twelve years the ratio of cases to deaths has varied from 1.1 in 1933 to 7.4 in 1943. The lower ratios generally have been obtained in years of lower incidence. This is brought out in table 1.

TABLE 1.—*Poliomyelitis in Texas: Cases and Deaths By Year*

Year	Cases	Deaths	Ratio	Year	Cases	Deaths	Ratio
1932	72	57	1.3	1938	63	41	1.5
1933	53	47	1.1	1939	232	63	3.7
1934	152	73	2.1	1940	187	42	4.5
1935	79	49	1.6	1941	123	50	2.5
1936	68	35	1.9	1942	243	50	2.9
1937	635	127	5.0	1943	1,274	168	7.4

It is probable that inclusion of relatively more abortive or non-paralytic cases swells the totals in "epidemic" years when both physicians and parents are likely to be more alert to the presence of poliomyelitis. In a report of findings on five Central Texas families in 1942 we[3] noted that probable abortive or non-paralytic cases were seen frequently. An analysis of findings chiefly from Houston but including also smaller communities, as shown in table 2, indicates clearly that abortive or non-paralytic cases were frequently encountered in 1943, although these cases some-

From the Bureau of Laboratories and Division of Epidemiology, Texas State Health Department, Austin, Texas.
Read before the Section on Public Health, State Medical Association of Texas, Austin, April 20, 1944.

times were not reported because of uncertainty of diagnosis.

TABLE 2.—*Clinical Types Among 91 Cases.*

	Abortive or Non-Paralytic	Paralytic	Total
Males	17	31	48
Females	19	24	43

Abortive or non-paralytic cases were more often recognized in siblings of frank paralytic cases. The abortive infection is readily confused with any of several other febrile conditions, and even if the initial systemic phase is closely followed by vomiting associated with secondary rise in temperature, hypersensitiveness, and other suspicious signs, the physician is likely to be left in doubt of the correct diagnosis. However, if stiff neck and stiff spine are also seen, the issue need hardly remain longer in doubt; under these circumstances the spinal fluid cell count is also likely to show an increase. A subsequent failure to find laboratory evidence of lymphocytic choriomeningitis or summer virus encephalitis was also helpful, at least in retrospect, in the diagnosis of some of the doubtful cases.

SEASONAL AND GEOGRAPHICAL DISTRIBUTION OF CASES, AND MORBIDITY RATES

Poliomyelitis, strictly speaking, is endemic in a considerable part of Texas at all seasons of the year. However, poliomyelitis in Texas, as elsewhere, is predominantly a disease of the warmer months. In 1943, the incidence reached a peak for the state as a whole in July. As shown graphically in chart 1, the peak was reached with a dramatic and almost explosive suddenness but subsided somewhat more slowly.

Reference has already been made to the unusually high incidence late in 1942, when the peak was reached in December. (Curiously enough, a somewhat similar situation was observed late in 1936, prior to the outbreak in the summer of 1937). The increased incidence had been maintained, although it was considerably diminished in the early part of 1943. In analyzing the seasonal distribution of cases, it is evident that the greatest incidence was not reached in all sections of the state in July. In some of the lower sections of the state the peak was reached sooner, and notably in the Panhandle where the outbreak was most intense, the

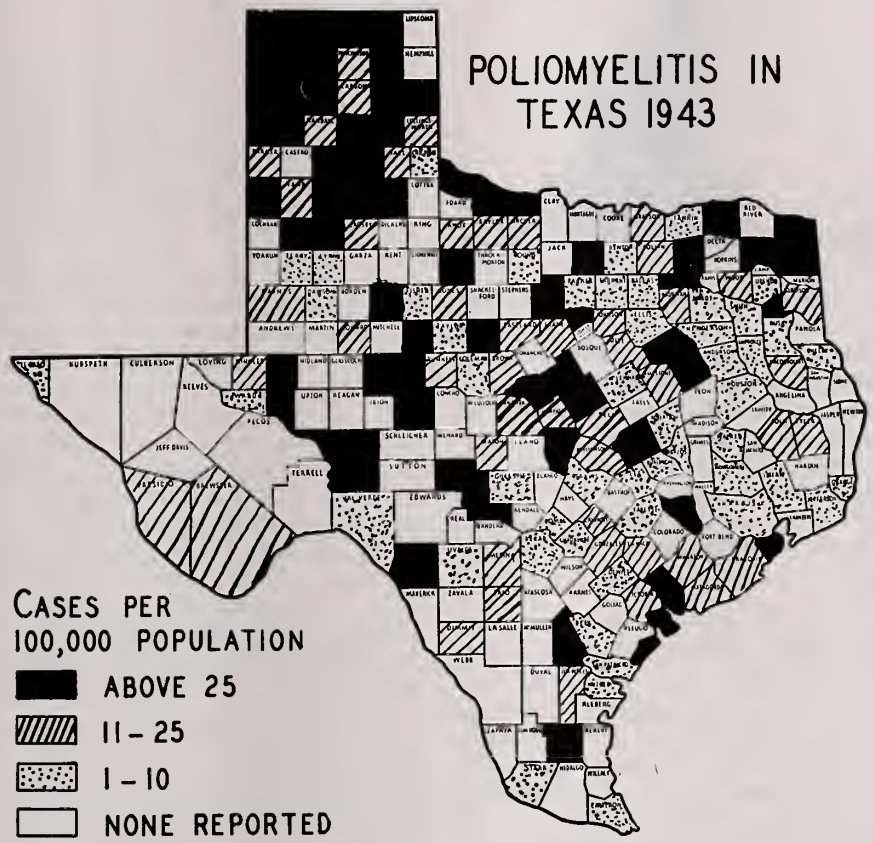

FIGURE 1

peak of incidence was not reached until late August, September, or even October. In recent years poliomyelitis has shown the greatest incidence in the western part of the state, but in 1943 cases were fairly widely distributed. However, there were numerous localities where cases did not occur, were not recognized, or were not reported. For the

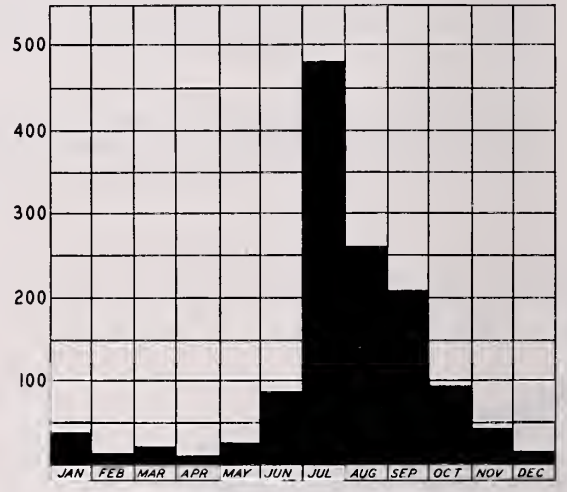

CHART 1. Monthly Incidence of Poliomyelitis in Texas in 1943.

state as a whole, the crude morbidity rate was approximately 20 per 100,000, contrasted with the usual rate of 2 or 3 per 100,000. In 1943, more than 60 of the state's 254 counties recorded morbidity rates in excess of 25 per 100,000 and nearly all of the Panhandle counties sending in reports had high rates as shown on the accompanying map. (Fig. 1).

INFLUENCE OF AGE, SEX, AND COLOR

A number of epidemiologists have commented on the apparent marked shift in distribution from younger to the older age groups in recent years. The age distribution of 306 cases in 1943 is shown by age groups in table 3. Comparison of this with data assembled from various parts of the United States in years past by Dauer,[4] appears to bear out the impression that the average poliomyelitis victim of today is somewhat older than of years past. However, this could in part be anticipated because of the shift in population by age groups; there are relatively fewer children nowadays in many communities. Certain other infectious diseases have been reported to have undergone a somewhat similar change in distribution of age. While our data clearly indicate that after infancy, the preschool child is particularly susceptible, it should be noted that about half of the total included school children under fifteen years of age. It is obvious, however, that poliomyelitis is seldom acquired at school since the summer vacation coincides well with seasonal distribution of the infection. Superficially, it might appear from table 3 that the disease was apparently disproportionately distributed by color. However, this apparent finding loses much of its significance when it is observed that poliomyelitis in common with other notifiable diseases is reported particularly poorly in Negroes.

TABLE 3.—*Distribution of 306 Cases by Age Group, Sex, and Color.*

Age Group	Sex		White	Negro	%
	Male	Female			
Under 2	13	10	21	2	7.5
2-5	45	38	78	5	27.1
5-10	38	33	70	1	23.2
10-15	34	29	59	4	20.6
15-20	20	14	34	0	11.1
Above 20	18	14	32	0	10.5
	55%	45%			100.0

Males are involved somewhat more often than females, but this difference has never been of any particular significance and was not very striking in 1943. It is well known in several of the communicable diseases that the male is slightly more vulnerable than the female.

Formerly it was believed that the older age groups more often involved were in rural communities while the younger groups in cities were attacked more often. These differences appear to have become less striking, in part, possibly because of greater mobility of the rural population. Our data, as far as we could judge, revealed no very striking differences but do not permit any definite conclusions in this regard, and we have no data from previous years for comparison. Studies by Dauer[4] have suggested that differences in age distribution as between urban and rural residents are perhaps less striking in the Southern States than in other parts of the United States.

OTHER EPIDEMIOLOGICAL FEATURES

Investigations in several communities threw very little light on the source of infection or mode of transmission. It is no longer generally believed that the nose is a primary portal of entry, but the belief in transmission through the agency of droplets or droplet nuclei from which the virus gains entrance through the pharyngeal mucosa has not been entirely discarded. It has long been recognized that the seasonal incidence of poliomyelitis does not at all fit in with that of the usual respiratory tract infections. The seasonal distribution would seem to fit in better with the gastro-intestinal hypothesis which has gained many adherents with recent reports of finding the virus in the intestinal discharges. In viewing this attractive hypothesis, one is impressed that there are

many similarities between bacillary dysentery and poliomyelitis. Both infections are endemic at all seasons of the year but are most prevalent in the summer months. Moreover, temporary carriers or mild infections are undoubtedly of frequent occurrence in both diseases.

As pointed out by Maxcy[5] and others, there is little or nothing about poliomyelitis suggestive of carriage through water. This appears to be true in that provision of the best drinking water does not suffice to protect a community from poliomyelitis. We were frequently impressed with the possibility of infection from swimming, particularly in pools which could not conceivably meet accepted Minimum Swimming Pool Standards. However, it was surprising how frequently the poliomyelitis victim had not been swimming.

While "murine poliomyelitis" is a laboratory concept of doubtful epidemiological significance, the possible association of rats and poliomyelitis long has aroused great interest. In his report on poliomyelitis at Corpus Christi, Coleman[1] commented on the similar distribution of typhus and poliomyelitis. In other investigations this was less striking, but since rats are ubiquitous, we were rarely able to eliminate indirect contact with rats as a possible source of infection. Late in 1942 or early in 1943 and later in the summer, rats and their parasites were obtained for determination of possible virus content in the Laboratories of Yale University and the University of Michigan; apparently no significant findings were obtained.

The virus was recovered from a pool of flies collected at San Antonio, and tested on monkeys in Dr. John R. Paul's laboratory early in 1943. The significance of this and similar findings is unknown. Presumably the fly is only a mechanical carrier and not a biological vector; these were not biting flies, and there is as yet no evidence that the virus multiplies in the tissues of the fly. Certain culicene mosquitoes have been rather definitely implicated in the transmission of some types of summer virus encephalitis. These infections and poliomyelitis have a number of points in common which conceivably could encompass similar modes of transmission. However, it seems unreasonable to believe that a mosquito or any other arthropod factor would overwhelmingly prefer to feed on children in distinct preference to adults, although on the other hand, it sometimes appears that younger children apparently acquire flea-borne typhus less often than adults. In contrast with encephalitis the poliomyelitis virus is not known to appear in the blood whence an insect or arthropod could become infected. However, we cannot entirely overlook the impossibility that some biting insect or arthropod could acquire the virus from fecal material, or blood, from some animal or bird.

LABORATORY FINDINGS

Since the reports on adaptation of the poliomyelitis virus to the cotton rat and of the Lansing strain to the laboratory mouse, Jungeblut and Dalldorf[6] have reported the adaptation of a poliomyelitis or poliomyelitis-like virus to small laboratory animals without previous adaptation to the monkey. Nevertheless, laboratory work on poliomyelitis is handicapped when monkeys are not obtainable. Hass and Armstrong[7] employing the Lansing virus found the neutralization test with patient's serum of little or no diagnostic value. On the other hand, Hammon and Izumi[8] frequently obtained a change from "negative" to "positive" or from "weak positive" to "strong positive" in comparing the acute phase and convalescent sera.

We attempted to perform some neutralization tests against both Jungeblut's M poliomyelitis-like virus and the Lansing virus. With the Lansing virus mice invariably died shortly after developing a fore-limb paralysis. Since many mice, however, do not develop paralysis, serum tests against this virus are frequently difficult of interpretation and oftentimes require repetition. With M poliomyelitis-like virus mice die with more uniformity and with shorter incubation period. Contrasted with the Lansing virus the M virus usually causes hind-limb paralysis. We fully realized that it would be wiser to use a virus obtained locally, but this was not available. From table 4, it is seen that with the M virus the serum neutralization test usually gave a negative result. With the Armstrong virus results were more variable and acute phase sera were frequently found protective, although less often than convalescent sera, and making the test of limited diagnostic value.

TABLE 4.—*Results of Poliomyelitis or Poliomyelitis-Like Virus Neutralization Tests With Human Sera.*

Virus	Convalescent Sera			Acute Phase Sera		
	Neg.	Doubtful	Pos.	Neg.	Doubtful	Pos.
Lansing polio virus	7	2	8	2	2	4
M polio-like virus	12	1				

We have also sought the poliomyelitis or poliomyelitis-like virus in human stool, spinal fluid, and brain or spinal cord on a number of occasions without any luck. Such a virus has also been sought in the stools or tissues of mice, rats, chickens, cats, and so forth,

some of which were brought to us by persons who strongly suspected the animal or bird was incriminated in the transmission of poliomyelitis. All of these tests have given negative results with the exception of several stool examinations on mice, a number of which have resulted in the recovery of a poliomyelitis-like virus causing paralysis or death with long incubation periods in other strains of mice. These strains were similar if not identical with the virus first recovered by Theiler,[9] in causing hind-limb paralysis after long and variable incubation periods. This virus is undoubtedly related to the M virus; however, we are somewhat skeptical of its pathogenicity for humans.

CONTROL MEASURES

Since no satisfactory method of prophylaxis has ever been devised, the relative importance of possible modes of transmission has never been determined, and many students of poliomyelitis believe that the virus is more or less ubiquitous when cases are recognized in a community, one has something of a hopeless feeling in expecting any very definite results from attempted control measures. However, we suspected that on some occasions at least, an effective link in the chain of transmission might be broken by correction of certain sanitary hazards or by promotion of good sanitary practices in general. In similar situations Lumsden[10] has advised, "Clean up, and stay clean!"

Control measures for guidance as prepared by Cox[2] were given wide publicity. Many local communities were stimulated to act constructively under the guidance of public health-minded leadership, and an impetus was given to local programs already projected or underway and concerned with control of rodents, anti-mosquito measures, better food handling practices, more efficient garbage disposal, and more adequate disposal of sewage waste products, *et cetera*. Likewise, health education emphasizing a high standard of sanitary practices in the home was pursued vigorously. It was pointed out that trying to run away from the disease probably did more harm than good. Closing of schools, churches, movies, and hygienically-operated swimming pools was not advocated. Early diagnosis and reporting of cases was urged to afford opportunity for correction of sanitary hazards and early treatment of the patient. Hardships from quarantine practices were avoided in most communities, but it was urged that children in the victim's family remain home, and adults refrain from public food handling during the stage of acute infection.

SUMMARY

Following an unusually late fall and early winter period of increased prevalence and a quiescent period, an outbreak of poliomyelitis unprecedented in the history of Texas occurred during the summer of 1943.

The 1943 morbidity rate for the state as a whole was approximately 20 per 100,000 and although low in comparison with some of the state's more pressing communicable disease problems, was nearly ten times the morbidity rate for poliomyelitis in most recent years.

The mode of transmission was not determined, but it was believed that unrecognized infections and large numbers of temporary carriers were contributory factors of great importance. The possible role of flies and other insects or arthropods as vectors of the infection was not determined.

Some laboratory findings were discussed. Laboratory observations concerned neutralization tests with serum-virus mixtures and the attempted recovery of poliomyelitis or poliomyelitis-like virus from various sources.

Suggested control measures placed considerable emphasis on environmental sanitation, and poliomyelitis in 1943 focused much attention on the need for better sanitary practices in the control of several communicable diseases.

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ABSTRACT OF DISCUSSION

Dr. J. M. Pickard, Dallas: This is a very excellent report on the epidemic we experienced in 1943, and though no definite conclusions were reached, I think that it is through such work as this that progress will be made. I have no opinion as to the means of transmission of this disease. I think it is of interest that, as brought out in the paper, the increase late in the years of 1936 and 1942 might have acted as a reservoir of infection for the marked increases in the years of 1937 and 1943. The figures in Dallas County appear to be about the same as throughout the state, there being 107 cases in Dallas County. The fact that the virus has been found in the intestinal discharges certainly makes it appear pos-

sible that this may be the means of transmission, as by flies contaminating foods. I believe this fact is recognized by all; however, if this were an important means of transmission, we would expect to find more cases in areas where environmental conditions were rather poor, which did not occur. Certainly it was not so in Dallas County. We should, of course, stress good sanitation, for it is a great help in keeping resistance high to all diseases. With regard to swimming pools being closed in Dallas County during the epidemic in 1943, I shall make a few observations. We realize, of course, that if all of our swimming pools were maintained according to the standards set up by the Texas State Department of Health, the possibility of obtaining the infection from this source would be small. Our experience with the operation of swimming pools has shown us that very few operate under such standards. We also know that chlorination of the swimming pool water does not appear to be effective in eliminating the virus. This depends to a degree, we think, on the acidity or alkalinity of the water. Knowing these conditions do exist, and trying to do everything possible to cut down the spread of the disease, it was decided that the pools in Dallas County should be closed, as we have yet to see any report from this or any area that shows that swimming is not one source of infection.

NEPHROSIS: ITS MANAGEMENT WITH PLASMA

CHARLES B. SHUEY, M. D.
DALLAS, TEXAS

This report deals with identical twins who were three years of age when seen February 17, 1943. It is of interest because of the unusual feature of nephrosis in twins occurring about the same time and because of the results obtained with the use of plasma and fever therapy.

In November, 1942, about three months before my seeing identical twins, T. M. and J. M., they developed what seemed to have been an acute respiratory infection with sore throat, cough and fever. Three or four days after the onset a slight periorbital edema was noticed by the parents, being more marked in the case of T. M. They had been seen by a physician and given a sulfonamide, which was stopped promptly when a nephropathy was suspected.

T. M. continued to swell about the abdomen and legs, and was admitted to the hospital, where a diagnosis of subsiding respiratory infection and nephrosis was made. During this three-day hospital admission it was noted that he had a "marked edema of the abdominal wall and lower extremities, edema of penis and scrotum." The significant laboratory findings were: persistent albuminuria without casts or cellular elements; urea nitrogen, 34; cholesterol, 260; serum protein, 6.8; albumin, 4.0, and globulin, 2.8.

At this juncture both children were treated with a low protein, salt-free diet, and small doses of magnesium sulphate from time to time.

J. M. had lost eight pounds, and T. M. had lost only two pounds under a similar regimen.

When examined in my office for the first time Feb. 17, 1943, J. M. seemed quite a normal boy, weighing 36 lbs., pulse 96, temperature 98.6 F., blood pressure 95/65, with no remarkable findings on physical examination. T. M., on the other hand, was still edematous, showing swelling about the face, eyes, abdomen and extremities, and weighing 46 lbs., blood pressure 98/65, pulse 120. There were rather pale, edematous nasal mucous membranes. Scattered sibilant rales were noted in the chest examination.

Urine analyses showed 4 plus albumin with no significant microscopic findings.

Since this time these little fellows have been admitted to the hospital and relieved of a rather massive edema almost at will with plasma.

The amounts given and the results obtained are worthy of note.

In the beginning it was thought that this syndrome occurring in identical twins might be attributed to a congenital anomaly and retrograde pyelograms were attempted, but due to instrumental difficulties encountered in three-year-old males only one ureter was catheterized which resulted in a normal pyelogram.

After admission to the hospital in February, 1943, and the finding of no azotemia, no urine cellular elements, with a marked albuminuria; no blood pressure elevation, and a lowered plasma protein with a reversal of albumin-globulin ratio, it was felt that the diagnosis of nephrosis was justified and plasma was instituted for the relief of edema.

The order of 50 Gm. of four times concentrated plasma as a single dose was regarded as unsafe by one of the attending staff, but after consulting Dr. Joseph Hill, who advised the use of calcium to offset the tetany that might be produced by the citrate in the plasma, a trial does of 50 Gm. was given on three consecutive days without undesirable reactions, also without any demonstrable effect on the nephrotic edema. It was then realized that this amount was inadequate.

T. M. was re-admitted to the hospital March 12, 1943, during which time he received four 60 Gm. injections of four times concentrated plasma. During this period his plasma protein determinations were as follows: March 13, 3.75; March 16, 4.1; March 22, 4.95; March 23, 7.5.

I doubt the accuracy of the last determination, since there was only one-fourth pound weight loss, and no plasma given after March 20, but during this time he had a diuresis and was discharged improved, but showing an albuminuria of 1875 mg. per 100 cc.

About a month later, May 20, 1943, both lads developed a diarrhea, which was followed rapidly by anorexia and a rather massive edema. Figures 1 and 2 summarize this admission, indicating the amount of plasma given and the rise in plasma protein paralleling the fall in the twenty-four hour quantitative albumin loss in the urine.

It is noticeable that there is a temporary increase in the amount of albumin lost following a large dose of plasma, but this is temporary.

During this admission, T. M. received three cabinet fever therapy treatments, and J. M. received typhoid vaccine intravenously, since it was rather difficult to secure appointments for both of them in the fever therapy department.

Since this admission, J. M. has remained well, and weekly twenty-four hour quantitative urine albumin reports show "not enough for a measurable determination."

T. M., however, had another episode of diarrhea, anorexia and edema, and was re-admitted promptly July 10, 1943, during which time plasma and typhoid vaccine intravenously were given as indicated by the graph in figure 3.

Since this admission both children have remained symptom-free and weekly twenty-four hour urine specimens show not even a measurable amount of albumin.

From the Department of Medicine, Southwestern College of Medicine, Dallas, Texas.

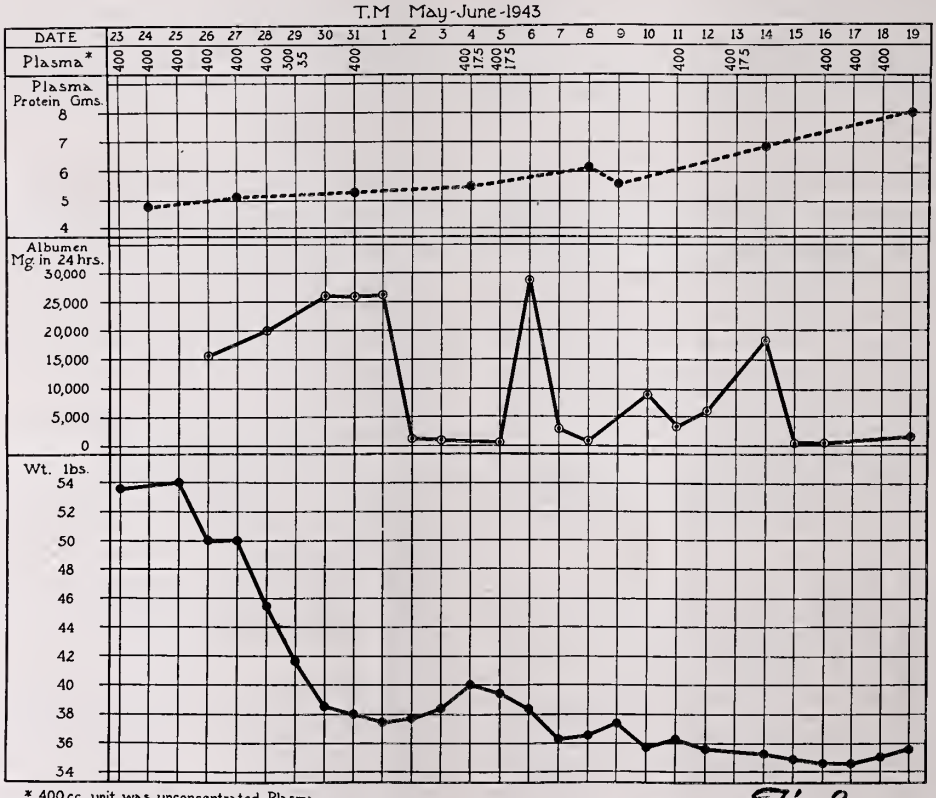
Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 21, 1944.

J.M. May-June 1943

* 400 cc. unit was unconcentrated.
17.5 Gm. was 4X concentrated

Fig. 1

T.M May-June-1943



* 400 cc. unit was unconcentrated Plasma.
17.5 Gm. - 35 Gm. was 4X concentrated Plasma
24 hr urine output not significant, so omitted on this chart

Fig. 2

Recent plasma protein estimations in both children were perfectly normal, with a normal albumin globulin ratio.

COMMENT

In spite of certain investigators, who feel that acacia is harmless and innocuous in relieving the edema of nephroses, one can say that it is certainly not physiological, and that large amounts remain in reticulo-endothelial structures indefinitely; and it has been noticed by several members of the staff that patients who have had acacia do not respond to plasma. It is certainly possible that acacia in some way prevents the storage and utilization of protein given subsequently in the form of plasma.

Whether or not massive doses of plasma plus fever therapy will offer a brighter outlook to the nephrotic patient remains to be seen. Certainly no definite conclusions can be drawn from the cases described, but the success encountered in these children is worthy of note and future consideration.

Since treating these children, I have had occasion to observe another case of nephrosis in my three-year-old daughter and have used the 400 cc. units of frozen plasma, which is equivalent to 2 units of the concentrated (20 Gm. units), which we give rather rapidly without undesirable effect. I think it can be said that the earliest clinical manifestation of too rapid administration is the tendency to cough, which is probably attended by a too rapid increase in blood volume which can be controlled by simply slowing down the administration. During her first admission, she was given one 400 cc. unit and one 20 Gm. unit, equivalent to 600 cc. frozen or 60 Gm. of the concentrated. After this administration she continued to cough and wheeze for about three hours. This was obviously too much.

The amount necessary to reach and maintain a normal protein level naturally depends on the amount lost and the amount utilized by way of food.

If a patient is losing 1,000 mg. per 100 cc. of albumin in the urine and has a 500 cc. output, it can be seen that one unit of plasma, or 20 Gm., two-thirds of which is albumin, will not replace 50 Gm. of albumin lost in the urine.

There is no doubt that the treatment is expensive even when the blood is replaced, to say nothing of what it would cost if friendly donors were not available.

In concluding, it is not felt that the use of plasma is curative, but it is undoubtedly true that these nephrotic victims reach a state which is characterized by anorexia and massive edema during which time their resistance is at its lowest ebb and they become easy victims of an infection which may prove fatal. At such a time it is felt that prompt administration of adequate amounts of plasma may restore these individuals to a more normal state of equilibrium, thereby decreasing the mortality from intercurrent infections.

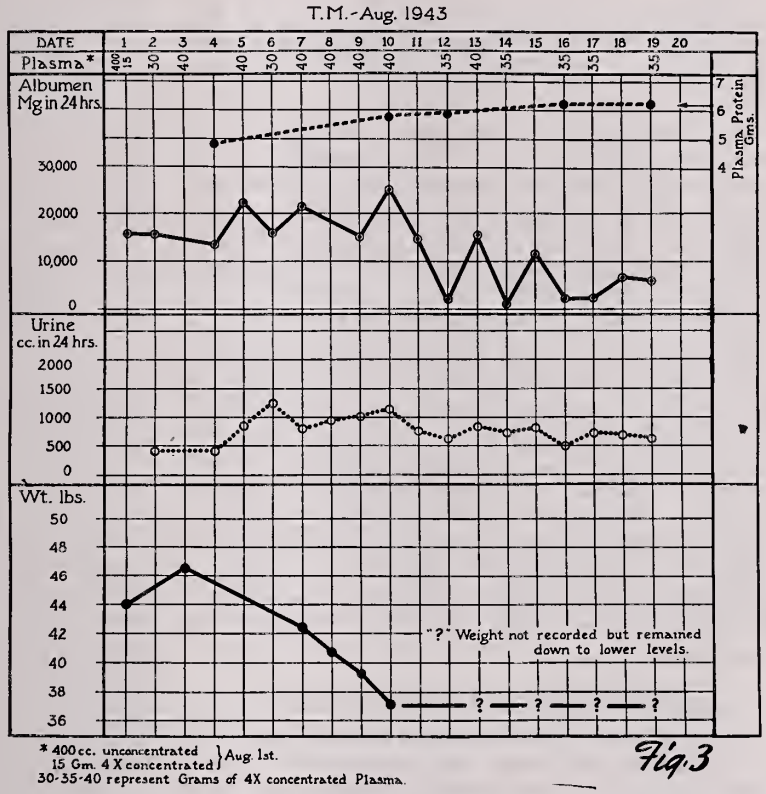


Fig. 3

I wish to express my sincere thanks and appreciation for the coöperation of the Buchanan Serum Center at Baylor Hospital and to Mr. Lewis Waters and the medical arts department of the Southwestern Foundation School of Medicine.

ABSTRACT OF DISCUSSION

Dr. H. N. Leopold, San Antonio: This excellent paper reveals that the author not only has the ability to explore a field which has heretofore puzzled many other investigators pathologically and therapeutically but also to make this approach in a really new manner. The combination of massive doses of plasma and typhoid vaccine is quite original as far as I am aware, yet Dr. Shuey quite modestly and quite in keeping with mature scientific judgment has refrained from making any particular claims for this method of treatment. It is quite well known now

that in diabetes mellitus the early administration of insulin ameliorates the severity of the disease and protects the islands of Langerhans from further damage. It may be that the early use of plasma plus typhoid vaccine may likewise protect the kidneys.

These cases are true lipoid nephrosis with the cardinal signs of edema, albuminuria, absence of hypertension or retinal changes, hypercholesteremia and absence of casts and evidence of renal insufficiency.

No one is better aware than Dr. Shuey that twenty-six years after Epstein's classic description there still is lack of agreement as to even the pathology involved in nephrosis. Van Slyke's monumental study of many years showed that he too shared in the confusion. Best and Wiggers have one concept, and Bell an entirely different one of the pathological features of nephrosis. It is neither the time nor place to enter this argument but many investigators feel that an extrarenal answer may be the final word. Albumin is manufactured in the liver, and this organ has not been studied sufficiently in this disease.

Ultimately, lowered blood osmotic pressure and the syndrome of nephrotic edema occurs and the constant protein loss continues to increase the edema. It may well be that this interesting work on these three little patients may be a real step in the final solution of this tragic problem.

Dr. J. M. Hill, Dallas: We have been interested in the problem of supplying plasma, particularly in the quantities required by some cases as those discussed by Dr. Shuey. At one time we had suggested a plan based on the principles of hospitalization insurance. In this plan we had proposed that each individual of a large group give one pint of blood and a small fee for which he would in return receive any quantity of blood or plasma required for himself or his immediate family during a period of one year. Unfortunately, this plan was not carried out, but I believe that some such arrangement might be the solution to this problem when one case requires such an enormous amount of blood. Another point which has interested us is that Dr. Shuey has demonstrated that very large doses of concentrated plasma can be given to people with normal circulatory systems. I believe that Dr. Shuey has probably given the largest recorded doses of concentrated plasma per pound of body weight and encountered difficulties only in a few instances. I believe such large doses should be given cautiously, but Dr. Shuey has demonstrated the innocuousness of this type of preparation.

RAISE SOYBEANS IN YOUR GARDEN

One of the easiest ways to become acquainted with the soybean, the latest valuable addition to the American dietary, "is to raise it right in your own garden," George K. Anderson, M. D., Chicago, advises in the July issue of *Hygeia, The Health Magazine.* "It lends itself readily to cultivation on a large or small scale and has been found to be one of the hardiest of crops. In the face of drouths which dwarf most other types of vegetables, the soybean continues to grow as usual. Those who have grown soybeans in home gardens are enthusiastic about this crop. It produces a yield two or three times greater than any other types of beans and may be made to provide a continuing supply of the green vegetable throughout the growing season. This is readily accomplished by planting varieties which mature at different periods. When the beans are picked with the pods fully developed but still green, the shelled beans serve as a fresh green vegetable for table use and taste much like fresh lima beans."

CALCIUM AND PHOSPHORUS METABOLISM AS IT RELATES TO CLINICAL PEDIATRICS

LT. COL. RAY G. DAGGS, SnC, A.U.S.
Eighth Service Command
DALLAS, TEXAS

Because of the complexity of the metabolism of calcium and phosphorus and the difficulty encountered in adequately controlling experiments, one finds many conflicting statements in the literature. What may be true for one species is not necessarily true for another. Statements that were originally made in theory, through repetition, have come to be accepted as facts. As our experience increases and our knowledge broadens, more and more is known of side reactions and the chemistry and action of many substances that alter or interfere with the absorption, retention, assimilation and excretion of calcium and phosphorus. It is the purpose of this present discussion to briefly review some of the more recent findings, particularly as they might apply to calcium and phosphorus metabolism in growing children.

Growing children can utilize only about 20 per cent of ingested calcium. This is in contrast to the 98 per cent utilization in rats. There is no significant difference between retention of calcium and phosphorus in preschool children, regardless of whether these elements are derived from milk or calcium phosphate.

The fecal excretion of injected calcium is negligible. From 90 to 100 per cent appears in the urine; therefore reabsorption of calcium secreted into the intestine must be nearly complete. About 80 per cent of ingested calcium appears in the feces. These findings indicate that fecal calcium is nearly all nonabsorbed calcium. However, there are many factors that affect intestinal absorption and secretion that will, in turn, alter the net absorption of calcium. Factors which tend to keep calcium in solution, promote absorption. Calcium is absorbed in the upper intestine where the reaction is slightly acid. Increased acidity in the gut tends to increase calcium absorption. Calcium is precipitated in an alkaline medium. Anything that tends to maintain an alkaline medium or form an insoluble calcium salt tends to prevent calcium absorption. Too much roughage interferes with calcium absorption; therefore the calcium of leafy vegetables is not as well absorbed as the calcium from milk. Not only does spinach lower the utilization of milk

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Read before the Section on Pediatrics, State Medical Association of Texas, Fort Worth, April 20, 1944.

calcium but the calcium of spinach itself is poorly utilized, probably because of its high oxalate content, since kale, which has a low oxalate content, can furnish utilizable calcium about as well as milk. Oxalates interfere with calcium absorption by forming an insoluble salt unless the calcium intake is very high, and more than compensates for the calcium used in forming calcium oxalate.

It is believed that much of the phosphorus present in foods is in the form of an ester-complex, which has a slow rate of hydrolytic cleavage in the intestinal tract. This permits the soluble calcium present in the gut to be absorbed before much phosphate is released to bind it in a relatively insoluble form. Iron, beryllium, manganese, and aluminum form insoluble compounds with phosphorus, thus preventing its absorption. High doses of iron in anemia therapy may seriously interfere with phosphorus utilization, particularly on a relatively low phosphorus diet.

Although very moderate amounts of fats have a beneficial influence on calcium absorption because of maintining a favorable intestinal *p*H, excessive amounts of fatty acids in the intestines tend to form insoluble soaps with calcium. Excess fats in the intestine such as occurs in high fat diets, celiac disease, and so forth, produce a negative calcium balance.

It has been held that the rachitogenic action of cereals, oatmeal in particular, is due to the unavailability of the cereal phosphorus. This is normally not the case. The cereal phosphorus compound, phytic acid, inhibits the absorption of calcium from the gut. The amount of phytic acid in oatmeal is about twice that required to precipitate all of the calcium of the cereal at neutrality. This leaves enough phytic acid to prevent the absorption of some non-cereal calcium present in the gut, thus producing a calcium deficiency unless a high calcium diet is taken with the cereal diet. Phytic acid forms a calcium-magnesium salt (phytin), which has a low solubility, and therefore is not easily absorbed. About 60 per cent of the phosphorus in cereals is in the form of phytate (sodium salt) and the rest in the form of phytin (calcium-magnesium salt). The calcium and phosphorus contents of cereals are of little value in determining the amounts of biologically available calcium and phosphorus. Rachitic signs have been observed in children receiving supposedly adequate amounts of calcium, phosphorus and vitamin D but whose diets also contained large amounts of cereal.

Orange juice, as well as various citrates, has been reported to favor the retention of calcium in growing children. Even though citric acid decreases intestinal *p*H, and increases tissue *p*H, both of which favor calcium absorption and retention, perhaps its main effect, especially when used in connection with cereal diets, is in removing the calcium from phytin. Citrates remove the calcium from phytin, forming a soluble calcium complex. This soluble calcium complex interferes less, if at all, with the utilization of the phosphorus of phytin. Citrates have no appreciable effect on calcium utilization when the diet is not high in calcium. Generally, children's diets do contain cereals, therefore phytin, but are not high in calcium. In order, then, to get the maximum effects of citrates, a high calcium intake should be maintained with cereal diets.

Calcium occurs in the blood serum in several different forms, two of which are diffusible. One of these diffusible forms is a calcium-phosphorus complex which is believed to be the precursor of bone salts. The blood content of this calcium-phosphorus complex is not proportionately related to the total calcium or phosphorus content of the blood. It may vary considerably, whereas the total calcium and phosphorus content of the blood may remain constant. Radio active calcium studies show that calcium is constantly mobilized from bones and teeth, thus assisting in maintaining a relatively constant blood calcium. Blood calcium is significantly lowered only when the body tissues are severely depleted. The blood calcium level is not changed much in rickets, since calcium is continually being mobilized from the bones. Blood phosphorus, however, is reduced in rickets. Parathormone tends to maintain ionic calcium in the blood, which can be thought of as calcium coming from the bones, whereas vitamin D tends to maintain the bound calcium in the blood, which can be thought of as calcium on its way to the bone.

Phosphorus occurs in the blood serum bound to organic and inorganic compounds. The enzyme phosphatase splits organic compounds of phosphorus into a diffusible inorganic form. Radio active phosphorus studies suggest that vitamin D also acts in converting organic phosphorus to an inorganic form. Vitamin D may also serve as an activator to allow the formation of the necessary calcium-phosphorus complex in the blood serum. Phosphatase increases in the blood serum when rickets are impending. Its increase is the first definite evidence of the development of rickets, even before any change in blood phosphorus occurs, and certainly before a changed bone structure is evidenced by roentgenograms. Thus, increased blood phosphatase may be used as an early diagnostic sign of rickets.

There is practically no experimental evi-

dence to support the old contention that vitamin D influences the absorption of calcium and phosphorus in man. This may, however, be true for rats. Vitamin D is concerned with the retention of calcium and phosphorus. The calcium content of the blood can be raised by the injection of calcium, but rickets cannot be cured by this method. Ossification of fragments of rachitic bone can be stimulated by a solution containing Vitamin D and calcium, thus showing that vitamin D is involved in the process of bone deposition. The increase in urinary calcium following deprivation of vitamin D is also indicative of systemic rather than local action. The primary effect of vitamin D is upon the metaphyseal deposition of bone and in larger doses upon bone shaft ossification.

There are several vitamin Ds, only two of which are of interest to us. Vitamin D_2, irradiated ergosterol, is derived from plant sterols, and Vitamin D_3, irradiated 7-dehydrocholesterol, is derived from animal sterols. Vitamin D_3 is better utilized by man than Vitamin D_2. Small amounts of fat are necessary for the absorption of vitamin D, but large amounts hinder its absorption. Only in fish does the liver act as a special storage organ for vitamin D. The liver acts no more as a storage depot in humans than many other organs. Some vitamin D is destroyed in the body and some is excreted, not through the kidneys but rather through the bile into the gut.

A substance, dihydro-tachysterol, commercially known as A. T. 10, is closely related to vitamin D. Although A. T. 10 has slight anti-rachitic properties (probably because of its contamination with calciferol, D_2) it is of little use in the treatment of the common low phosphorus type of rickets. It does have some effect in the less common low calcium type. It causes an increase in phosphorus excretion and raises the blood calcium, thus relieving tetany.

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ABSTRACT OF DISCUSSION

Dr. Harold T. Nesbit, Dallas: Colonel Daggs has presented interesting and valuable factors regarding calcium and phosphorus metabolism as related to clinical pediatrics. He has emphasized that the utilization of calcium and phosphorus rather than the intake, is an important factor. Laboratory studies in animals where utilization may be 50 per cent greater cannot be accepted as a basis for feeding infants. In this vicinity it is necessary to add inorganic calcium to the dietary of infants to insure a normal, healthy child and adult. The water in surrounding lakes is so deficient in calcium in some instances that the fish remain small. By adding calcium to the water it has been demonstrated that larger, heavier fish develop. Likewise with cattle, in one nearby county the addition of calcium to the feed resulted in normal growth of calves in pastures previously abandoned because they had produced only "runts." Since there is evidently a greater need for calcium in this vicinity than elsewhere it is imperative to observe that certain foods used in our dietaries may aggravate that need. Colonel Daggs calls attention to the deleterious effects of cereals containing phytic acid such as oatmeal, that form insoluble salts; that the high oxalate content of spinach may cause it to be frowned upon as a choice food; that fats in moderation help utilization but in abundance may be harmful; that citrous fruits and juices render less absorption of calcium, particularly so with cereal foods. Colonel Daggs' reference to the rachitogenic effect of iron in the prevention of phosphorus absorption should also be observed.

I should like to ask the essayist to discuss further any factors which would increase absorption and utilization of calcium in humans, such as ultraviolet light, parathormone, acid milks, milk sugar, and so forth. Does parathormone assume any dietary value except in tetany? Is there any oral product of parathormone that is of therapeutic value? Colonel Daggs' presentation is of scientific interest to those of us in clinical pediatrics. It has delineated factors of extreme importance in our daily management of infant feeding.

Dr. Don W. Freeman, Denison: I enjoyed Colonel Daggs paper very much. I should like to ask the following questions: When should inorganic calcium be added to the diet of a growing child? What form of calcium is preferable, and what is the dosage.

SEPTICEMIA IN NARCOTIC ADDICTS

Pointing out that the development of bacterial infection of the blood stream in narcotic addicts as a result of their addiction is a rare occurrence, four Washington, D. C., physicians tell in *The Journal of the American Medical Association* for October 28 of 5 cases of such infection in heroin addicts. In 4 of the 5 cases death followed the development of acute bacterial endocarditis with 3 of the cases due to Staphylococcus aureus and the fourth to Bacillus pyocyaneus. In 1 case of Staphylococcus aureus septicemia without endocarditis, recovery occurred. Hugh Hudson Hussey, M. D.; Thomas F. Keliher, M. D.; Bertram F. Schaefer, M. D., and Bernard J. Walsh, M. D., report the cases.

The medical profession has followed the conservative idea of waiting until a patient becomes sufficiently ill to seek advice. Thus, they have always been handicapped in the treatment of pulmonary tuberculosis because of the fact that a patient ordinarily is not seen until he has symptoms. In tuberculosis this can only lead to grief, for by the time symptoms appear the disease has passed the optimum period for treatment. The use of chest x-rays of the apparently healthy is the best known method of determining early tuberculosis—*C. Howard Marcy, M. D., Diseases of the Chest*, May-June, 1944.

THE SURGERY OF INTRACRANIAL ANEURYSMS

JAMES GREENWOOD, JR., M. D.
HOUSTON, TEXAS

In a discussion of the surgery of intracranial aneurysms, I shall limit myself to recent surgical developments in the diagnosis and treatment of these lesions. I shall also confine the subject to true aneurysms without attempting to cover carotid-cavernous fistulae, which perhaps occasionally begin as true aneurysms in that part of the carotid artery surrounded by the cavernous sinus, but terminate in a fistula rather than in subarachnoid hemorrhage.

Most of the aneurysms occur in the circle of Willis and are prone to appear where a large artery branches to give two smaller tributaries, or where a small artery arises from a large trunk. Here the smaller vessel must carry the pressure of the larger at least for a short distance and congenital weakness plus arteriosclerosis and increased blood pressure combine to produce aneurysmal dilations. Syphilis seldom, if ever, causes aneurysms in vessels of this size.

Most of the aneurysms are symptomless unless rupture occurs when the usual picture of "spontaneous" subarachnoid hemorrhage is produced. There is sudden headache frequently followed immediately by a stupor or coma. The neck is moderately rigid and the diagnostic spinal puncture reveals a bloody fluid. Frequently there is a third nerve palsy which is an aid in lateralizing the lesion. Occasionally the headache is one-sided, which has a similar significance. Some aneurysms never rupture but grow to tremendous size, making themselves known by severe unilateral headache (relieved by compression of the carotid artery on the same side). Loss of vision from pressure on the optic chiasm or ptosis and lateral strabismus from pressure on the third cranial nerve may be present.

Rotengenograms may show erosion of the sella and the aneurysms may actually be seen if, as occasionally happens, its wall is calcified. Further localization can be accomplished by arteriography with thorotrast, although a negative finding does not always rule out an aneurysm since a clot in the aneurysm may narrow the lumen of the blood stream to normal size and a false aneurysm would not be visualized at all. Electroencephalography, according to Woodall and Lowrenbach,[5] may offer some aid in lateralizing the side of the bleeding during and following actual rupture.

The immediate mortality from rupture is 25 per cent to 30 per cent, and a fairly high percentage will have a second rupture which carries a higher mortality. Over half of our cases of spontaneous subarachnoid hemorrhage have had no recurrence. This, however, does not eliminate our responsibility in attempting to reduce the potential mortality in this condition. Since the first of the year, I have had two patients who, treated conservatively, returned home after over a month in the hospital to die from a second hemorrhage several weeks later.

FIG. 1. (Case 3). Roentgenogram in a case of aneurysm of the carotid artery, showing erosion of the sella and calcium in the aneurysm wall.

Except for the infrequent posterior group occurring in the vertebral, posterior cerebral and lower portion of the posterior communicating artery, all of the aneurysms of the internal carotid and circle of Willis are accessible to surgery through an anterior approach. Theoretically, at least, aneurysms could be removed from any place in the anterior circle except in the middle cerebral artery and in the anterior cerebral artery in front of the anterior communicating segment. Compression tests should be carried out on the carotid to determine the adequacy of supply from

Read before the Section on Surgery, State Medical Association of Texas, San Antonio, May 4, 1944.

the opposite side. Where the aneurysm is in an end artery a great deal can be accomplished by the lowering of blood pressure produced by ligation of the internal carotid, or where the circulation is inadequate muscle grafts may be placed to surround and strengthen the aneurysm wall, as carried out by Dott and Jefferson, according to Schorstein.[3]

Dandy,[1] in 1938, reported a case in which he clipped the neck of a saccular aneurysm of the internal carotid intracranially. Walsh and Love,[4] in 1939, reported 4 cases of aneurysm with ligation of the internal carotid artery in the neck. Dandy[2] reported in 1942 the removal of an aneurysm of the anterior cerebral artery, which he mistook for a tumor.

FIG. 2. Essentially normal arteriogram after 10 cc. thorotrast injected into the internal carotid artery.

Massive hemorrhage necessitated clipping the internal carotid artery, which produced no ill effects. He later reported several additional cases, in which the aneurysms had been attacked surgically with more or less success.

Although there have been no reports of operation during the acute or bleeding stage, I am not at all sure that these cases do not constitute a surgical emergency, particularly if the localizing signs are definite.

Surgical Treatment.—During the stage in which there is bleeding from a ruptured aneurysm, the conservative treatment is the only method to be considered unless surgical attack can be developed to the point where it has proven an advantage. A single spinal puncture should be made for diagnosis only, but this should not be repeated. Sedatives, including opiates, may be necessary. After recovery the patient should be cautioned particularly against sudden exertions such as straining at stool, lifting, etc., since many recurrences come on with such provocation.

If the patient is not elderly, further surgical treatment or investigation may be carried out two to four weeks after the bleeding clears up. Unless the localizing signs are definite, arteriography may be used to locate the aneurysm and to determine whether simple carotid ligation or both ligation and intracranial approach should be used.

While the dangers of carotid ligation are definite, they may usually be avoided, although sometimes this means that the plan to ligate must be given up. Manual compression of the carotid should be carried out for periods of twenty to thirty minutes daily for several days. If this produces no difficulty then the carotid can be exposed under local anesthesia for ligation. In all of our cases a ligature has been placed upon the artery and an additional waiting period of thirty minutes allowed. In 2 cases a hemiplegia occurred, which immediately cleared up on release of the ligature.

In only 2 cases was intracranial exploration done. In one, after ligation of the internal carotid artery in the neck, I was able to coagulate the carotid intracranially below the origin of the ophthalmic artery but above the aneurysm, and section it. Following this, the aneurysmal sac, which was shown to have a clot in it, was destroyed by coagulation.

While no definite procedure can be outlined for all cases and while the number reported is small, there is definite proof that for at least some aneurysms of the circle of Willis, surgery may be employed to relieve symptoms, to prevent recurrence of rupture or to eradicate entirely the condition in the most favorable instances. Much will be developed in the next few years.

CASE REPORTS

CASE 1.—N. D., a white woman, age 72, a patient in Hermann Hospital (July, 1942), had been known for several years to have a pituitary lesion with erosion of the sella and atypical visual changes. X-ray

treatment had produced some relief from her severe headaches, but this was transient. A left frontal craniotomy revealed a large aneurysm of the internal carotid artery on the left. Due to marked arteriosclerosis no surgical attack was attempted, but the adherent optic nerve and chiasm were freed from the capsule. For some reason there was considerable relief of pain following the operation.

CASE 2.—M. M., a white woman, age 47, was a dilaudid addict due to her severe retro-orbital pain. There was a complete ophthalmoplegia on the right with marked x-ray evidence of erosion of the right side of the sella. Compression of the carotid artery relieved her headache instantly and did not produce any neurological symptoms. She was admitted to the Methodist Hospital February, 1943. The internal carotid artery was exposed in the neck and a thorotrast injection disclosed an irregularity in the internal carotid artery but did not show the aneurysm definitely. Fifteen minutes after ligation a left hemiplegia developed which recovered when the ligature was removed. Partial ligation was not attempted, although this has since been used in a case of arteriovenous aneurysm where complete ligation was not possible.

CASE 3.—G. L., a white boy, age 16, was admitted to the Methodist Hospital on March 25, 1943. He complained of extreme headache in the right retro-orbital region that had been present for several years. There was partial loss of vision in the right eye with a large paracentral scotoma. A roentgenogram of the skull revealed a large parasellar aneurysm on the right with a calcified wall. Compression of the carotid artery gave complete relief of pain. The internal carotid artery was ligated in the neck with complete relief of all symptoms and marked improvement in the scotoma.

CASE 4.—R. C., a white man, age 43 years, was admitted to the Methodist Hospital July 29, 1943. Eight years before, he had been taken to the Mayo Clinic for subarachnoid hemorrhage, presumably from a ruptured aneurysm. At the time of his last admission he was acutely ill, with rigid neck, bloody spinal fluid and extreme headache on the right side of his head. After a prolonged stormy course his symptoms subsided, except for headache, and one month after admission thorotrast was injected and roentgenograms showed an aneurysm, 2 by 3 cm., located near the bifurcation of the internal carotid. The artery was ligated and after a waiting period of thirty minutes without mishap the wound was closed. Previous tests had indicated that ligation would be tolerated. The patient's headache immediately cleared up and it was believed that the lowered blood pressure through the aneurysm would make subsequent rupture less likely. The position of the aneurysm contraindicated direct attack.

CASE 5.—Sister M. B., age 25 years, was admitted in coma to the St. Joseph's Infirmary on October 7, 1943. She had worked at the hospital until the onset of the attack, which began with continuous convulsions, a rigid neck and a left ophthalmoplegia. She had complained of headache and eyestrain for several years. A spinal puncture revealed a high pressure and fluid which was almost pure blood. She fortunately recovered from this attack and three weeks later the left internal carotid artery was ligated after compression tests had been carried out. Two weeks after this a left frontal craniotomy was done, and after elevation of the frontal lobe, an aneurysm about 1.5 cm. in diameter was seen on the lateral side of the carotid artery, densely adherent to the tip of the temporal lobe. A clot was present in it and extended to the point where the ophthalmic branch arose. The ophthalmic artery was somewhat longer than normal so that visualization was not difficult. The carotid artery was coagulated with the coagulation forceps and cut about 1/3 cm. below the ophthalmic artery. A muscle graft was placed over the stump to further reinforce it. The aneurysmal sac was then destroyed by coagulation. Recovery was uneventful and at the present time she has been back to full work for several months with complete relief from both headache and the third nerve palsy.

CASE 6.—H. E., a white man, age 65, was admitted to the Methodist Hospital, December 14, 1943. He had had extremely severe headache in the right retro-orbital region for several years. Pantapon was needed for relief. The right eye was almost completely blind and there was temporal encroachment upon the field of the left eye. Compression of the right carotid artery gave immediate relief of pain. He had a hypertension of 220/120. The right internal carotid artery was exposed and arteriograms taken following the injection of 10 cc. of thorotrast for lateral and anteroposterior projections. These were negative which, of course, did not rule out a false aneurysm or a true aneurysm with canalized clot. Compression of the common carotid artery produced paralysis in fifteen minutes. Due to advanced arteriosclerotic changes no partial ligation was attempted.

Dr. Walter Dandy saw this patient about two months later and thought that he probably had an aneurysm, but was against additional surgical attempts.

FIG. 3. (Case 4). Thorotrast arteriogram, showing aneurysm near bifurcation of right carotid artery.

SUMMARY AND CONCLUSIONS

Six cases of aneurysm in the region of the circle of Willis have been briefly reported. In three of them nothing was accomplished surgically because of inability to ligate the internal carotid artery without producing paralysis. In the remaining three, ligation was accomplished without mishap with complete relief of symptoms. No further surgery was thought advisable in two of these, but in the third an aneurysm of the internal carotid artery was isolated and the sac destroyed by coagulation.

Although it would be premature to outline the surgical treatment of cerebral aneurysms, it is now certain that for at least some of them surgery offers more than the conservative treatment.

Lateralization of the aneurysm frequently can be determined by neurological signs, location of the headache, x-ray findings or arteriography. The internal carotid artery should be ligated on the side of the lesion if this can be accomplished without producing a hemiplegia. Intracranial exploration is warranted if there is a possibility that the aneurysm might be isolated by clips or coagulation, or both. For the time being at least surgical measures do not seem to be warranted until the bleeding has become quiescent. The use of fascial or aluminum bands could be used for partial occlusion of the carotid artery where complete ligation is not possible. Sympathetic block or sympathectomy may also extend the present limits of surgery of the cerebral aneurysms.

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521 Medical Arts Building.

Swiss physicians report that diet deficiencies in France in calories, protein, minerals and vitamins are producing deficiency diseases, delaying growth, and greatly lowering resistance to acute and chronic infections in French children. Tuberculosis, rickets, scurvy and dermatitis are rapidly increasing and living conditions as well as hunger are having a serious effect on delinquency and on the mental and social attitudes of children. In some countries there are reports of alarming increases in vision and hearing defects. In all these countries hunger is combined with suffering from cold, due to lack of fuel for homes and to lack of clothing and shoes.—*Martha Koehen, Ph. D., Ohio State Med. Jour.*, Sept., 1944.

REPORT OF A CASE OF TERATOMA OF THE LIVER IN AN INFANT

SILAS M. YARBROUGH, M. D.
GAINESVILLE, TEXAS

On March 23, 1941, P. L. C., a white female, age six weeks, was brought to me for examination. The baby was born February 9, 1941, and weighed 8 pounds at birth. The parents gave a history of the baby crying continuously, vomiting and constipation, and of the abdomen rapidly increasing in size. When the baby was three weeks old, the abdomen was much larger than at birth, measuring 14 inches in circumference. The baby's weight at that time was 9 pounds, 8 ounces.

Upon examination the baby weighed 10 pounds, 11 ounces, the length was 20½ inches, and the abdomen measured 19 inches and felt very hard. The lower part of the chest was greatly increased in circumference. The head and extremities were normal. A roentgenogram after barium administration showed the stomach greatly displaced to the right, with a large tumor inside the abdomen.

The baby was admitted to the Gainesville Sanitarium, Gainesville, Texas, at 7:30 a. m.,

FIG. 1. Teratoma removed from margin of liver. Dark area on left represents attachment of liver.

April 1, 1941. The patient had several convulsions before and after admission to the sanitarium. Operation was performed at 9:45 a. m., April 1, 1941, under a general anesthetic of ethylene gas. A left rectus incision was made, and a large teratoma of the liver, weighing 3½ pounds, was removed from the margin of the liver. It was the size of a man's head. Some adhesions were present from the tumor to the intestines and to the peritoneum. There were two or three cysts present in the tumor, which contained yellow fluid. These sacs ruptured before the removal of the tumor. It was necessary to excise the entire three and one-half-inch margin of the liver in order to remove the tumor. There was no hemorrhage. About

fifteen free ties and sutures of catgut were required to prevent hemorrhage. The peritoneum, muscle fascia and skin were closed in the usual manner and dressing was applied. No drainage tube was used.

Pathological examination of the tumor removed was made by Dr. J. L. Goforth of Dallas. His report follows:

The different sections taken from the teratoma show practically every tissue in the normal body mechanism—skin, mixture of connective tissue of different types, fat, connective tissue, cartilage, intestinal mucosa, cyst lined by squamous epithelium, hypophyseal tissue, blood vessel formation, choroid plexus tissue, pancreas, and maybe intestinal or duct epithelium, liver, brain tissue (cerebellum), bronchial mucosa, stratified squamous epithelium, bone tissue in the formation.

The patient had convulsions for about forty-eight hours after operation. Postoperative treatment consisted of oxygen, one ampule of lobeline sulphate as a stimulant, and from 2 to 4 drops of paregoric as often as necessary to relieve pain. The temperature was 104.6 F. at 9:00 p. m., the day of the operation, but the temperature remained high for only a few hours. The baby was given a milk formula and was allowed to nurse the breast. The skin sutures were removed on April 9, and the wound was healing normally. On April 12, the baby was discharged from the sanitarium to go home. At this time the weight was 8 pounds 11 ounces, and the abdomen measured 13.5 inches. The condition of the patient was good.

COMMENT

The case is reported February 14, 1944, and the patient is now three years old. I have examined her several times since the operation. She is normal physically and mentally. There is no recurrence or signs of any mass in the abdomen. Her present weight is 31 pounds, the height is 37 inches and the abdominal circumference is 19 inches.

I have been unable to find a report of a similar case in library packages received from the Library of the State Medical Association of Texas, or the Library of the American Medical Association. I believe this to be the first case of teratoma of the liver in an infant in which operation was done and recovery occurred. The teratoma in this case contained liver and pancreas and all three germ layer derivatives, namely, ectoderm, entoderm and mesoderm.

I have reported this case perhaps too briefly, but I have attempted to mention all the important facts except one—the careful nursing after operation, which I consider one of the principal factors in the recovery of the patient. The attending nurse worked skillfully and faithfully with the baby for several hours after operation, administering oxygen, feeding milk with a medicine dropper, giving paregoric to relieve pain and helping to prevent convulsions.

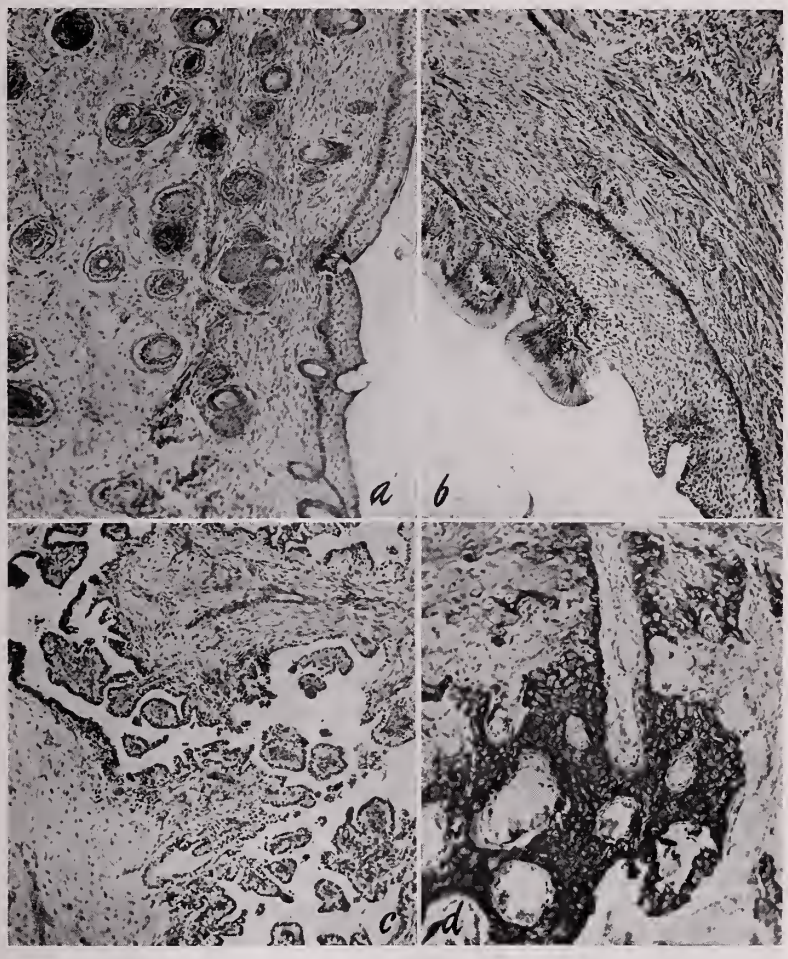


FIG. 2.—Photomicrographs of sections of the teratoma; (*a*) Skin, probably scalp; (*b*) Bronchial mucosa, stratified squamous epithelium; (*c*) Choroid plexus tissue (of brain); (*d*) Bone tissue from tumor.

Less than a generation ago tuberculosis held uncontested leadership among the causes of death; today, its virtual eradication is in sight. It is no longer a fantastic dream for those of us who have been active since the initial stages of the campaign against tuberculosis in America to expect to witness the final stages as well.—*Louis I. Dublin.*

TUBERCULOSIS AMONG MEDICAL SCHOOL PERSONNEL

At the University of Texas From 1941 to 1944

JESSE B. JOHNSON, M. D.
AND
W. S. WALLACE, A. B., M. D.
GALVESTON, TEXAS

The development of active pulmonary tuberculosis among medical students, nurses, and other hospital personnel has been of serious concern to school authorities for only the past few years. Before the organization of active student health and hospital personnel services with routine examination of all applicants and of students during their course of study, alarming numbers of students, nurses, and others were found, when they began to present severe symptoms, to have far advanced pulmonary tuberculosis. Studies of the incidence of pulmonary tuberculosis in these groups were stimulated by revelation of incidences as high as 10 per cent at Harvard Medical School in 1924[4] and 11.5 per cent at the University of Pennsylvania Medical College in 1930.[7] After 1930, most universities adopted generalized student health programs, particularly in the case of their medical schools, but before 1930, the problem of student pulmonary tuberculosis was much like the weather—everyone talked about it but no one did anything much about it.

The futility of attempting to prepare students to take their part in protecting their patients against pulmonary tuberculosis and treating the unfortunate ones who acquire it, without training them in measures and precautions for their own protection is obvious. Tuberculosis is the most serious unsolved medical problem[6] and is the leading cause of death in the highly productive years from 15 to 45. The efficiency of a medical school is measured in direct proportion to the service it renders the public as a whole, and tuberculosis is the most serious health problem facing the public; inefficiency is obvious when schools do not take measures to protect and care for their own immature embryo physicians. In many schools, reliance for the diagnosis of pulmonary tuberculosis has been placed on physical examination alone, though it is a well known fact that the most expert physical examination will not disclose more than one-fourth of the early cases.

The student health program for the medical school must necessarily differ largely from that for the university as a whole because of the varying problems involved. Acute infectious diseases, injuries, skin diseases and problems of adjustment make up the bulk of the trouble confronting the university student health physician, with tuberculosis playing a relatively small part. On the other hand, the age group of medical students (it is authoritatively estimated that between 1 per cent) and 3 per cent of the general population in the 20 to 29 age group develop pulmonary tuberculosis,[1] the rigors of their course of study, the frequent exposure of medical students during their studies to highly infectious individuals, and a variety of other reasons of personal equation, make the problem of the medical student health service largely one of tuberculosis. With reported incidences of tuberculosis in medical students varying from the previously mentioned high percentages and averaging somewhere around 0.5 per cent as compared to around 0.1 per cent in other college students,[19] the magnitude of the problem is increasingly apparent. In the case of student nurses, whose care usually rests with the medical student health service, the tuberculosis rates are frequently even higher than in medical students,[2, 10, 11] the rate usually varying directly with the number of tuberculous cases cared for in the hospital.[13, 15]

The tuberculosis problem is of particular importance during the present war emergency because the two branches of the armed forces have undertaken to provide medical and nursing education for qualified individuals, at public expense. The need for well-trained doctors and nurses is very great, and the public investment in each individual trained is high. It is imperative that students with active pulmonary tuberculosis be culled out as completely and efficiently as possible, that every feasible method of protection be employed,[8] and, finally, that those students who do develop a pulmonary infection be discovered at as early a stage as possible.

It is very difficult to gain definite conclusions regarding incidence of tuberculosis among various student groups from the literature because of the variety of ways in which the diagnosis has been reached at different institutions — in some institutions chest roentgenograms being made only on tuberculin positives,[18] in some only on patients with positive physical findings in the thorax,[1] and in some on the basis of foreign residence, race, or history of contact.[5] It is significant indeed that in every available report, the introduction of routine annual chest roentgenograms for the student body increased the number of cases found by 400 per cent or more.[19, 2] A discussion of the value and pos-

From the University of Texas School of Medicine, and the John Sealy Hospital, Department of Radiology, Galveston, Texas.
Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, San Antonio, May 3, 1944.

sible significance of the positive tuberculin test is far beyond the scope of this essay; there is much sound and convincing evidence for both schools of thought concerning it. We make no attempt here to correlate tuberculin test results with roentgen findings in the chest, and are inclined to minimize the importance of the tuberculin test in the diagnosis of adult pulmonary tuberculosis. Likewise many cases of early pulmonary tuberculosis can be first diagnosed on the basis of history and physical examination. The aim, however, of medical school authorities is, and should be, early discovery and adequate treatment of every case of tuberculosis among the school's personnel, and it is only by routine x-ray examination, repeated sufficiently frequently, that every case will be found.[18, 5, 17, 16] The cost of such group examinations is negligible, compared to the cost of care of a single advanced case, and the examination cost is further reduced when the new procedure of photo-fluorography, employing miniature films, is used.

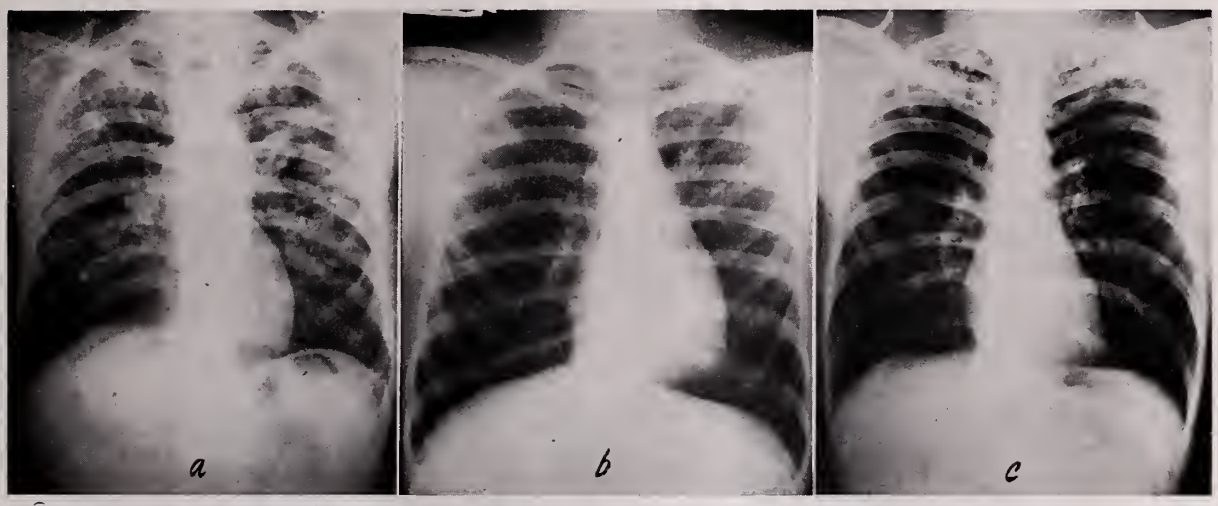


FIG. 1*a*. Roentgenogram in a case of typical far advanced pulmonary tuberculosis, not diagnosed until found at routine x-ray examination.

b. Roentgenogram in a case of pulmonary tuberculosis in which the condition was known to a medical student who carried on self-treatment while attending courses of instruction in the Medical School.

c. Roentgenogram in a case of bilateral tuberculosis with acute fulminating symptoms, discovery of which led to x-ray examinations of the entire study student at the Medical Branch of the University of Texas.

Despite our primary interest in the early diagnosis of every case, we feel that there are interesting features of the endemiology of pulmonary tuberculosis among medical students, particularly as they relate to our own group and those discussed by previous observers. At the Medical Branch of the University of Texas, many students harbor a notion[14] that it is very common to contract active pulmonary tuberculosis from the cadaver at the postmortem table. Questions of large groups of medical students and graduates at Harvard,[17] Minnesota,[12] Wisconsin,[18] and New York University,[3] reveals an almost universal belief that the possibility of this mode of transmission of the tubercle bacillus in minimal and that the greatest single factor in prevention of advanced pulmonary tuberculosis in these groups is almost entirely a matter of education of the student himself to a rigid contagion technic and to the simplicity and accuracy of a roentgen film of the chest as compared with other diagnostic methods. We have seen the same students who leave the autospy amphitheater when dissection reveals a calcified apical lesion completely disregard their own personal safety by attending fluoroscopy on classical cases of far advanced tuberculosis with cavitation without any visible attempt at contagion technic. We are happy to state that usually the patients in whom the diagnosis has already been made come to the x-ray department masked, but this is not always the case. The most dangerous cases of tuberculosis from the standpoint of transmission are the fulminating exudative type in young adults and the chronic fibroid type with cavities in older individuals. Many in each of these groups are frequently unaware of the existence of their tuberculosis or its nature and present themselves as clinic or hospital patients for intercurrent diseases or for symptoms referable to other organs than the lungs. (Fig. 1 *a*). If the average autopsy were conducted with as little care as are many examinations of the living patient, we should expect the possibility of autopsy transmission to be a very real one. However, in our experience, no pathology diener, with their customary close contact with cadavers and with cadaveric organs after they are remov-

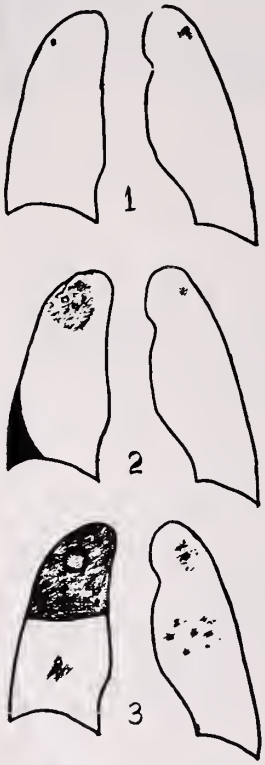
ed, has developed pulmonary tuberculosis at this institution.

The population group from which the Medical Branch of the University of Texas draws its patients has a very high incidence of unsuspected pulmonary tuberculosis, due largely to its composition. As is the case elsewhere in the South, our percentage of Negro patients is quite high. In addition, we have the added factor of a rather large Mexican group. The susceptibility of both these races to pulmonary tuberculosis and the common gravity and ease of transmission of their infections are widely known phenomena, and only too frequently lesions are only discovered on routine chest films after the patient has been in attendance at a clinic or hospital for some period of time. Similarly, many highly infectious patients have been discovered by surveys of asymptomatic, supposedly healthy groups of the community.

TABLE 1.—*Incidence of Pulmonary Tuberculosis, Univ. of Texas Medical Branch, 1941 to 1944.*

	1941	1942	1943	1944
I. Students.				
1. First year.	2 (18.1%)	0	0	0
2. Second year.	7 (63.6%)	5 (62.5%)	1 (14.3%)	0
3. Third year.	1 (9%)	2 (25%)	4 (57.1%)	4 (100%)
4. Fourth year.	1 (9%)	1 (12.5%)	0	0
5. Total	11	8	5	4
6. Percent of Total Students	2.93%	2.13%	1.33%	1.06%
II. Faculty.	1	2	1	1
III. Student Nurses.	5	1	0	0
IV. Hospital Employees.	(Not examined before January, 1944)			5

FIG. 2.—*National Tuberculosis Association Classification of Tuberculosis.*



1. Apical or Subclavicular, triangular shadow, mottled area, or nodule of soft irregular increase in density, in one or both upper lobes, usually in the lateral zone of the lung. Usually unilateral.

2. Larger lesions, extending below the second rib anteriorly, with or without small cavities—may have marked associated pleurisy. Most commonly bilateral.

3. Involvement of as much as an entire lobe, cavity or cavities with total diameter greater than 2.5 c. m.—may have extensive areas of tuberculous pneumonia.

Our recent experience, when a survey of 2,326 food handlers of the county showed 68 (or 2.92 per cent) with active pulmonary tuberculosis, was highly significant in this regard. It goes without saying that the students, during their period of residence at Galveston, are exposed to many infected members of the community whom they contact far away from the medical school and hospital, and we have been able to trace a substantial number of our cases to such contacts.

Before inauguration of routine chest films for students, faculty, and all other personnel, there were occasional individuals who knew they suffered from active pulmonary tuberculosis and, prompted by a variety of reasons, usually economic, attempted to carry on a normal routine with the aid of self-treatment or no treatment at all. (Fig. 1 *b*). Undoubtedly the intimate working and living conditions among these individuals, some of them faculty and some of them students, and their associates, resulted in a number of new cases. Likewise, the lack of adequate treatment was certainly not conducive to satisfactory progress of their own lesions. In three of our very early infections in students (all National Tuberculosis Association Class 1 and very small) we have allowed the students to remain in school on a limited program and have observed rapid and satisfactory healing.

Before the spring of 1941, the student health service at the University of Texas Medical Branch was a loosely organized system under which the students were allowed to consult the various clinicians on the school staff of their own volition and there was no centralized system of record keeping. Likewise, when an x-ray study was deemed advisable, the student was required to pay a part of the private patient rate for such study.

In February, 1941, a sophomore student suddenly began to exhibit acute fulminating symptoms and subsequent x-ray study of his chest revealed rapidly advancing exudative lesions of both upper lobes. (Fig. 1 *a*), bordering between National Tuberculosis Association Class 2 and 3*. Routine examination of this student's three roommates disclosed that they each also had a Class 2 bilateral apical tuberculosis (Fig. 3 *a*). It was then decided to disregard film cost and examine first the entire fraternity and subsequently

*AUTHORS' NOTE.—We neither advocate nor disclaim the National Tuberculosis Association Classification. It is used in this essay only for convenience.

the entire student body. In this survey, two other sophomore students and two freshmen, all fairly closely associated with the original four, were found to have active tuberculosis, one in Class 1 and three in Class 2. The student with a minimal Class 1 infection (Fig. 3 *b*) was put on bed rest for four weeks and then resumed limited activity when his lesion showed signs of rapid healing. All of the Class 2 patients were referred for sanatorium care. At the completion of the survey, it was discovered that a few students had not availed themselves of the x-ray examinations for one reason or another. Round-up of these strays revealed three more active cases, all Class 2, in a sophomore, junior, and a senior. Subsequent investigation revealed that one of these students had been refused admission to another medical school on the basis of his positive chest film. Some of the faculty members availed themselves of the survey and Class 1 infections, and one student nurse with a Class 2 infection. (Table 1.)

This survey showed a welcome drop in the rate of incidence of tuberculosis for the year of 1942, with rates of 2.13 per cent for medical students and .83 per cent for student nurses. The presence of three Class 2 infections in individuals who had shown no roentgen findings less than twelve months before indicated that a yearly survey was not sufficient, and after that time surveys were conducted semi-annually. In 1943, the two surveys made found one sophomore with an infection bordering between Class 2 and 3, three juniors with Class 1 infections and one junior with Class 2, for a total incidence of 1.33 per cent of the student body. No cases were disclosed in student nurses in 1943, but another medical school instructor was found with Class 1 infection.

In late 1943, it was decided to press more

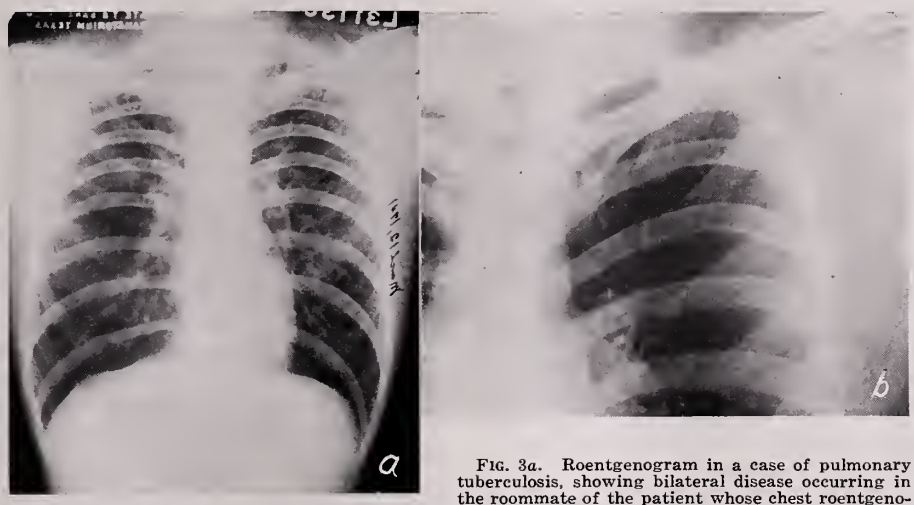


FIG. 3*a*. Roentgenogram in a case of pulmonary tuberculosis, showing bilateral disease occurring in the roommate of the patient whose chest roentgenogram is shown in FIG. 1*c*.

b. Roentgenogram in a case of pulmonary tuberculosis in a medical student, showing a minimal subclavicular lesion which cleared rapidly.

two instructors were found to have Class 2 and 1 infections. The survey was extended to include student nurses and four were found with Class 1 lesions, one with Class 2 lesion.

The terrific rates of active tuberculosis, 2.9 per cent of medical students and 4.16 per cent of student nurses, activated the immediate establishment of a more closely knit student health service, the main feature of which was to be a yearly chest study of every student. Before a year had elapsed however, one junior and three sophomores exhibited prominent symptoms and another survey was made, disclosing a total of five sophomores with Class 1 infections, a junior with Class 1 and a junior with Class 2, a senior with Class 2, two instructors with strongly a survey of faculty members, and to include employees and other personnel whenever possible.

So far in 1944, we have uncovered two Class 1 and two Class 2 infections, all in junior students, for a percentage of 1.06 per cent, one Class 1 infection in a faculty member, and two Class 1 infections, two Class 2 infections and one Class 3 infection, all in miscellaneous employees of the Medical School.

Two factors, the explosive development of pulmonary tuberculosis within six months, in previously x-ray negative students, and the relative ease of survey examination by roentgen means when large groups are properly coordinated and organized, have prompted us to adopt a program of four yearly chest examinations for students, two yearly chest examinations for nurses, and one yearly ex-

amination for all other Medical Branch personnel. This program will directly fit in with the projected routine entrance examination of all clinic and hospital patients before they are seen in any clinical department; all examinations to be conducted with the aid of photo-fluorography, the cost of miniature films bringing such an ambitious program well within range. It is superfluous to add that all positive or suspicious findings will be checked with conventional films.

CONCLUSIONS

1. Pulmonary tuberculosis is a serious hazard to the training of doctors, which is of such great importance in the present war emergency.

2. Most cases of pulmonary tuberculosis in students at the University of Texas School of Medicine can be traced directly to contacts, usually among the students' associates.

3. The danger of infection from patients is equally great, and the student should be taught, indeed forced, to perfect his own adequate contagion technic, which largely can be a matter of simple hygiene.

4. Routine x-ray examination of the chest, at adequate intervals, will discover infection at a stage when it is most certainly easily curable.

5. Such routine examination has caused a phenomenal decrease in the incidence of pulmonary tuberculosis in students at the University of Texas Medical Branch.

6. With the aid of photo-fluorography, the University of Texas Medical Branch, because of the high incidence of unsuspected tuberculosis in patients and general population, will continue to examine the chest of every student at quarterly intervals.

7. The routine entrance examination of every clinic and hospital patient with a miniature chest film will greatly protect medical students and others from infection with tuberculosis from an unsuspected case, in addition to eliminating such unsuspected cases from the hospital population.

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Dr. Johnson: 2201 Ave. D.
Dr. Wallace: John Sealy Hospital.

RUBEOSIS IRIDIS DIABETICA

LT. RICHARD G. SCOBEE, M. C., U. S. ARMY AIR FORCES
RANDOLPH FIELD, TEXAS

Rubeosis of the iris in diabetes is a rare condition, which is characterized by a peculiar non-inflammatory vascular proliferation affecting primarily the iris; it is usually associated with a secondary glaucoma resulting from blockage of the filtration angle by newly formed blood vessels. Because the treatment of this type of glaucoma has, in as far as is known, been consistently worthless, it was felt worth-while to report a case in which surgical therapy was successful and also to discuss possible reasons for this peculiar vascularization of the iris.

Rubeosis iridis diabetica was first described by Salus[9] in 1928, and he applied to the eye a term coined by von Noorden[11] in 1927. von Noorden had originally applied the name rubeosis to a peculiar rosy coloration of the skin of the face which is often seen in the presence of untreated diabetes in young persons. The hands and feet may be affected, but the forehead and cheeks are the usual sites. The eyebrows may be stunted, sparse, or absent, while the eyelashes are frequently unusually long. Diminished tone, with consequent lengthening and broadening, of the capillaries has been described in the nail beds of these young diabetics,[15] and it is suspected that similar capillary findings are in the skin affected with rubeosis, combined with an abnormal transparency of the epidermis to account for the color. Under treatment, the tone of the capillaries increases and coloration of the skin disappears. The association of rubeosis with xanthosis imparts the "peaches and cream" complexion which so frequently is seen in the presence of untreated diabetes in young persons and

From the School of Aviation Medicine, Department of Ophthalmology, Research Section, Randolph Field, Texas.

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sometimes is mistaken for the bloom of health.

Several cases of rubeosis iridis diabetica have appeared in the literature[3] since the original report of Salus. The appearance of the iris is very striking, the surface being festooned with newly formed vessels, especially near the sphincter region where the individual branches anastomose to give the appearance of a ring or collar. On gonioscopic examination, large vessels are seen running peripherally into the angle where they break up again into innumerable branches connecting directly with Schlemm's canal and forming extensive peripheral synechiae. A recurrent hyphema is common, and quite frequently recalcitrant glaucoma supervenes. The glaucoma yields only temporarily or not at all to operative treatment. A peculiar feature is that the vessels have been reported to sometimes disappear spontaneously, but the glaucoma associated with recurrent hyphemata may rapidly destroy vision, while the eye may have to be removed because of pain.

A histological examination by Kurz[6] in 1937 showed that the new vessels were unassociated with inflammation or with newly formed tissue but lay upon and in the iris itself. The choroidal vessels were also enormously dilated, and in both regions there were numerous extravasations of blood into the tissues. A frequent concomitant is a hemorrhagic diabetic retinopathy; and in association with the neovascularization of the iris, a similar proliferation of new vessels has been noted on both surfaces of the cornea[7] and on the optic disc.[6]

CASE REPORT

A. T., a 31 year old white male, was first seen in the Emergency Room of the Barnes Hospital and Washington University Clinics, St. Louis, on the night of January 25, 1942. His chief complaint was one of "a severe pain in my right eye" of twenty-four hours' duration.

His past history revealed that he was a diabetic under sporadic and intermittent treatment for the past three years. The patient, living with his parents in a trailer, had travelled over the country, seeing first one physician and then another. He had never carried out the instructions of any one physician for any length of time, feeling that he could treat the condition better himself. The family history was irrelevant.

His vision had been "bad from time to time" during the past five years, but when he was finally told that it was a result of his diabetes, he ceased to worry about it. On the evening of January 24, 1942, while eating supper, he noted the onset of a sudden, sharp pain in the right eye and shortly thereafter his vision began to fail in the eye. The pain, continued, growing worse instead of better with the passage of time and by morning the eye was very painful, reddened, and vision was very dim. During the afternoon of January 25, 1942, the lids began to swell, and since aspirin did not relieve the pain, he began to be worried. An insulin injection failed to help the eye materially, and he finally decided to consult a physician about 10:30 p. m.

Examination revealed a healthy-appearing, white male, evidently suffering acute pain in his right eye. (Only pertinent details will be given.) His cheeks had a rosy flush commonly associated with excellent health, and his eyelashes were long and curling. The eyebrows were heavy and bushy, meeting in the midline. The right eyelids were moderately swollen. The palpebral and bulbar conjunctiva was markedly injected but there was no chemosis. The right cornea was moderately steamy, the right pupil partially dilated and fixed to light. On the surface of the right iris, even through the cloudy cornea, several new large vessels radiating to the periphery could be made out. A small hyphema was present. No view of the fundus was possible. The left eye was externally normal but fundus examination revealed innumerable fresh and old retinal hemorrhages of varying shapes and sizes; one old hemorrhage was absorbing nicely in the macula. Vision was: OD—HM at 3 feet, OS—6/60. Tension with the Schiotz tonometer was OD—65, OS—18. The diagnosis was one of rubeosis of the iris, OD, with secondary hemorrhagic glaucoma and also diabetic retinopathy, bilateral.

Urinalysis revealed a 4 plus sugar reaction and the blood sugar was 320 mg. per cent. He was admitted to the hospital and an attempt made to control his diabetes, meanwhile preparing the eye for the probable eventual surgery.

Upon hospitalization, all available measures were tried in an attempt to lower the intra-ocular pressure in his right eye but with relatively little success. Meanwhile, careful investigation revealed the not entirely unsuspected fact that his diabetes was the type in which unless the blood sugar level was very high and urine sugar 2 plus, the patient would go into insulin shock. The Diabetic Service was not happy over their discovery and neither, we might add, was the Ophthalmological Service. After four fruitless days of attempting to control the diabetes. since the eye was still painful and hard, surgery was finally decided upon.

It was felt that an iridotasis was the operation of choice, since to cut the iris and its many new vessels was considered an ideal way to promote intra-ocular bleeding. It was accordingly attempted and it was then found that the highly vascularized iris tissue was too stiff to lie peacefully incarcerated in the prepared incision. Finally, an iridencleisis was done and to our pleasant surprise, little bleeding was encountered. Our fears of infection proved groundless, and the patient blandly proceeded to enjoy an uneventful convalescence. This was too good to be true, however, and after three weeks, a spontaneous hyphema occurred and from then on it was an uphill and losing battle. The vision in the eye never rose above 2/60 and the few glimpses of the fundus that could be obtained revealed only a mass of retinal hemorrhages.

On the night of March 31, 1942, he again presented himself at the Emergency Room, this time with a painful left eye and an intra-ocular tension of 61 mm. Hg. (Schiotz). This was not entirely unexpected, since we had been watching a rapidly progressive vascularization of the left iris for the past month. Gonioscopic examination revealed a filtration angle literally jammed with small, newly-formed capillaries, resembling nothing so much as a can of fishing worms or a basket of snakes. Since the patient's diabetic state was as well under control as it had ever been, it was decided to perform a cyclodiathermy over the area of sclera from whence the major part of his new vascular network seemed to be supplied. This was accordingly done. To make a long story short, the tension dropped slowly in the left eye over a period of seven weeks until it was 25

mm. Hg. (Schiotz). Vision in the left eye was 4/60 when the patient was last seen, and his left retina, like the right, was a mass of hemorrhages.

The patient desired to resume his nomadic existance in a trailer, and nothing could be done to change his decision. Hence he was given a letter enumerating details of his case and requesting information from any physician whom he might consult. Our last communication about him was received just twenty-three months after the cyclodiathermy and the following information was enclosed: the right eye was blind, slightly shrunken, and painless, the left eye had a normal intra-ocular tension, vision of 6/60, and numerous retinal hemorrhages. He had used no miotics for the past fifteen months.

In this one case, at least, a cyclodiathermy seems to have been the surgical answer to an otherwise unruly ophthalmological condition, and this fact would seem to make the case worth reporting.

DISCUSSION

Much has been written in speculation on the etiology of the so-called diabetic retinopathy. To our knowledge, no one has attempted to explain the cause of this non-inflammatory neo-vascularization of the iris in these same diabetic patients. It would seem that at least we may hazard a fairly logical guess at the reason and perhaps later experimentation will bear it out.

Let us therefore for the moment deviate from a discussion of the iris vascularization and consider the retina itself in diabetes and the known facts of diabetic retinopathy. It seems clear from numerous studies[4, 14] that the deep retinal hemorrhages in diabetes are due solely neither to hypertension nor to retinal sclerosis. The assumption that diabetic retinopathy was caused by arteriosclerosis has proved a stumbling block and a dogmatic barrier to complete understanding of the etiology of retinal and other ocular manifestations, according to Agatston.[1] He noted that the retinal veins showed dilatation and engorgement in active iritis and uveal disease, in pneumonia and active pulmonary tuberculosis, and in leukemia, diabetes, and some cases of non-hypertensive arteriosclerosis. Agatston also has been able to demonstrate actual pathological changes in the veins of diabetics and sometimes in senile arteriosclerotics. These changes would seem to extend *into the post-capillary venules as well as the capillaries.* He studied pathologically the fundi of diabetics showing only enlarged veins without other retinopathy (whose eyes he was indeed fortunate in securing) and summarized his findings as follows:

1. The severity of retinitis is frequently out of proportion to the diabetes (a well known fact).
2. Diabetes may exist a long time without retinitis.
3. Complete control of the diabetes does not arrest the tendency to thrombosis or hemorrhage.
4. Some severe cases of diabetes show only mild retinitis with small hemorrhages.
5. Large hemorrhages coupled with *engorged or sacculated veins* are not uncommon in fully controlled diabetics.
6. Venular and capillary pathology offers the more logical explanation of fundus pictures, because the advanced retinal changes are so frequently out of proportion to existing arterial or renal disease.
7. The first sign of retinitis is not lipoid exudate but petechical capillary hemorrhage or thromobsis of a *post-capillary vein.*
8. There is no apparent fluctuation in the prothrombin values in diabetes.

While the fundus picture does not always represent the degree of severity of diabetes, the absence of changes in retinal veins as well as arteries is a favorable prognostic sign. The combination of capillary hemorrhages and small white spots in the presence of good retinal veins is also favorable. Engorged retinal veins indicate an impending tendency to thrombosis and large hemorrhages into the retina and vitreous cavity. As we all know, this may mean ultimate loss of vision, with or without glaucoma.

Wagener[14, 12, 13] in his studies of diabetic retinitis has also found the veins mildly dilated. In a certain number of cases, a marked abnormality is observed in the veins and this is apparently different from that seen in any other disease although resembling somewhat the retinal lesions seen in syphilis and tuberculosis of the eye. The veins are dilated and in some the dilatation is nodular with intervening constrictions suggestive of the presence of thrombi.

To repeat, it is perfectly obvious and well known that the state of diabetic control has apparently no relation to the development or progress of ocular lesions.[2, 8]

According to Root,[5] retinitis proliferans is nature's attempt to control massive and repeated hemorrhage into the vitreous. It is also known[3] that retinitis proliferans results from intra-ocular hemorrhage in the presence of irritation; intra-ocular hemorrhage in the absence of irritation will terminate in absorption. To return to the iris, now, we know that rubeosis of the iris occurs in the absence of irritation (inflammation) and is quite definitely not an inflammatory process. Hence, rubeosis iridis and retinitis proliferans in diabetes are in nowise a similar process.

The retinal vessels are merely visible examples of the vessels elsewhere in the body. Presumably in these same young diabetics with rubeosis iridis, not only are the vessels in the cheeks and retina dilated in their post-capillary venules, but the same or similar changes are present in the chorid and also the anterior ciliary vessels and posterior ciliary vessels which contribute to and make up the major circle of the iris. We know that nature always forms new vessels in attempting to circumvent a thrombus, as, for

example, in rete mirabile of the vitreous.[3] If thrombi occur in the vessels draining the iris, new vessel formation would then be an obvious sequel. With the evidence at hand[1, 4] showing that these changes in the veins do occur, leading to thrombosis, then the development of new vessels on the iris surface would seem to be highly logical and explainable.

If we could prevent this post-capillary venular dilatation in diabetes, then presumably there would be no diabetic retinopathy as such, if the findings of the investigators mentioned can be accepted. Similarly, the same would hold true with reference to rubeosis of the iris. Since, in the light of our present knowledge, this is impossible, the next best thing is the determination of a course of procedure after "the horse is gone" so to speak, and the dilatation has occurred. A purposely produced arterial thrombosis by coagulation with the cyclodiathermy should cut off the vascular supply of the newly formed and forming vessels present in the filtration angle, leading to their collapse. At least this would seem to be the reason for the satisfactory surgical result in the present case. It will be interesting to see what cyclodiathermy will do in further cases of glaucoma in this relatively rare condition.

An interesting and perhaps quixotic sidelight comes from an observation[10] that after the administration of male hormone to a diabetic with typical retinopathy, the entire fundus picture cleared in twenty-one days time. That a diabetic should receive male hormone was accidental, since it was given for another purpose entirely. This is an isolated case but it perhaps opens interesting vistas for further study.

SUMMARY

A case of rubeosis iridis diabetica is reported, together with a successful surgical result in the secondary glaucoma associated with it. A cyclodiathermy was the procedure in question. The possible etiology of rubeosis of the iris is discussed along with possible reasons for the success of the cyclodiathermy.

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ABSTRACT OF DISCUSSION

Maj. Brittain F. Payne, M. C., Randolph Field, (read by Col. Victor A. Byrnes): It is a great honor to have been asked to discuss Dr. Scobee's paper on rubeosis iridis diabetica. He has presented a picture both clinical and pathological that should be associated with diabetes mellitus and the secondary glaucoma that often accompanies the disease. Ophthalmologists so often think of the disease as involving only the retinal vessels and the crystalline lens, but those of us who have had an opportunity to study sections of diabetic eyes have been able to find other remarkable changes. One of the most frequent findings is degeneration of the pigment epithelium of the iris. A migration of pigment occurs, and frequently the iris angle is filled with debris containing its fragments. It is possible that the noninflammatory formation of blood vessels on the surface of the iris is secondary to these changes. I am sure that many operations for the relief of increased intra-ocular pressure in diabetes have been performed without knowledge of the existence of rubeosis. Dr. Scobee's study and observations of this condition deserve great credit, and I am distressed that I cannot present a slide showing the changes he describes. There are more than 100,000 ophthalmic slides at the New York Eye and Ear Infirmary and a number of diabetic slides are included in that collection. I have not as yet seen the microscopic changes described but after hearing this excellent paper, I have resolved to review the material at the Infirmary with the hope of confirming these findings.

Dr. Charles P. Schenck, Fort Worth: Dr. Scobee has given us a very interesting discussion and case report on a relatively infrequent pathological condition. It has not been my good fortune to encounter such a case, and I feel a sense of obligation to the author for his graphic description of such an eye, which should make the recognition of this condition readily possible.

The question of what surgical procedure is suitable for a given case of glaucoma often presents some difficulty. Certainly any cutting operation carries with it the possibility of an intra-ocular hemorrhage which may defeat the objective of lowering the tension and preserving the vision. In certain instances the danger of hemorrhage may be lessened by rectal avertin and by retrobulbar infiltration with novocain and adrenalin.

In this particular instance the numerous new iris vessels, engorged by strangulation at the angle of the anterior chamber, would make one particularly apprehensive about hemorrhage. The decision to use cyclodiathermy, instead of surgery, seems to have been a happy one, judging from the lowered intra-ocular tension which followed.

I feel that this paper is a distinct contribution to current medical literature and will be well worthy of publication.

Penicillin appears to have no value in the treatment of acute rheumatic fever, two separate groups of investigators declare in separate reports in *The Journal of the American Medical Association* for September 30.

A PROPOSED TUBERCULOSIS PLAN FOR TEXAS

BY

GEORGE W. COX, M. D.
State Health Officer
AUSTIN, TEXAS

There are several urgent problems of tuberculous control confronting Texas people, that require our undivided attention. Any additional delay only increases their magnitude, and adds to the cost of solving them. The most pressing situation is the provision for the care of infectious cases of tuberculosis. These cases are the ones which perpetuate the disease from one individual to another person, and continue tubreculosis from the present generation to future ones. The new cases of the future will be derived directly from the present infectious cases. It seems logical at this time to review briefly our present method of handling the infectious cases of tuberculosis.

From the viewpoint of economics, the average case of tuberculosis requires that the patient be hospitalized from tax-supported means. In confirming this statement, a recent survey of all institutionalized cases in the United States showed 90 per cent were from public funds. In general the prolonged illness from tuberculosis places the majority of individuals in the position of depending on assistance from local and state government facilities.

In the early period of the rapid and widespread development of tuberculosis sanatoria, their prime purpose was usually stated as being particularly the care of early minimal cases that could be expected to be improved by institutional treatment. Our Texas State Sanatoria are no exception to this adopted policy. As a result, these two institutions with a total capacity of 1,150 beds have been unable to keep pace with the case load of Texas, particularly in the special racial groups affected with the disease. The majority of patients receiving a diagnosis of tuberculosis for the first time are already in the advanced stages of the disease and are not eligible for admission to the institutions, according to these criteria. Their only hope for institutional care is from the few city-county sanatoria connected with the larger cities, if the patients are fortunate enough to be residents of a county possessing this type of hospital. A large percentage of the patients in far advanced cases have no choice but to remain in their homes. It is not to be inferred that the State Sanatoria do not admit infectious cases of the disease. Many patients at the Sanatoria have positive sputum, but the limitation of residence to nine months results in numerous discharged patients returning to their homes in an infectious state. The burden of care of infectious tuberculous patients rests now upon local voluntary and official agencies. A casual survey of the known cases of tuberculosis in Texas reveals thousands of these cases in this category. In many areas health workers are confronted with an unsurmountable problem, unless State assistance can be provided.

The open cavity cases with positive sputum are present in large numbers. This huge reservoir of tuberculosis is our predominant health problem. The majority of these people are confined to their homes. They are too sick to be able to earn a living, and are dependent upon other members of the family, and upon friends for a continued existence. On some families this is an added burden. Few homes afford protection to the other contacts; thus the seeds of the disease are planted in family groups to give rise to future cases of tuberculosis. A recent report by the census bureau indicates that 74 per cent of the total deaths from tuberculosis in Texas occurred outside of an institution and in the home. During the terminal phases of the disease there is the greatest opportunity for infection of the contacts. There just was no place available to send these advanced cases. To reverse this pattern of home to institutional care of tuberculosis represents one of the soundest public health measures that is possible at this time.

The widespread activities of health agencies in conducting various surveys and the dangerous results of tuberculosis brought to light by the Selective Service System, are of small avail if we do not offer means of combating the disease to those known to be infectious at this time. It is comparable to continuous bailing of the boat without making an effort to plug the leak. The torpedo hole in our present health program boat is our inability to make use of one of the great advantages of institutional care for tuberculosis that will accrue from the segregation of infectious patients from the rest of the population, particularly from the intimate contacts in the homes.

It is proposed that the State of Texas acquire one of the suitable military bases to be abandoned and convert the buildings into a tuberculosis sanatorium capable of eventually accommodating from 1,500 to 2,000 beds for infectious cases of tuberculosis that are not eligible for admission into any institution. The sanatorium should be provided with a complete staff with modern training in tuberculosis, and the facilities for supplying the

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most modern treatment of the disease. Surgical facilities should likewise be made available. In the conversion plan, the original military buildings would accommodate several hundred patients. Permanent buildings could be completed as funds permit. In a period of several years, a thousand or more patients could be hospitalized from this early military base.

Facilities as suggested, operated over a period of several years, providing isolation and treatment of those with the disease in an advanced stage, would play a major part in the reduction of tuberculosis morbidity. The care of minimal cases is not a major part of the campaign against tuberculosis. The provision for unrestricted residence and the elimination of the factor of infection of the contacts, are sound principles of public health.

The problem of tuberculosis is not the sole responsibility of any single branch of the government. It rightly should be a coöperative program—each contributing its part; otherwise the cost would be excessive for any single organization to bear. By pooling the collective facilities the way and means can be provided for a strong forward step toward control of the disease. In order that local units of the State may be able to participate in the program, the arrangement should be on a share basis; that is, the county pay a share of the cost per day up-keep, and the State the remainder. Many counties have no legal way of providing funds for the hospitalization of tuberculosis patients.

A second suggestion is now made to secure funds for county use in a general public health program, and for share payment of hospitalization of infectious cases of tuberculosis. Funds for this purpose could be obtained by statutory enactment by the Legislature of a Constitutional Amendment permitting counties to vote a tax up to 10c per $100 valuation for these purposes. In some counties it would not be necessary to have a total tax of 10c; a smaller sum would be satisfactory. Of the total tax passed, a definite amount should be set aside for hospitalization of tuberculosis patients, and the remainder available for a general health program.

The suggestive coöperative program provides (1) for acquisition by the State of one the suitable military establishments from the Federal Government that can be transformed into a modern tuberculosis sanatorium, to provide isolation and treatment for from 1,500 to 2,000 infectious cases of tuberculosis, for unrestricted periods of residence, or until the patients are well and of no danger to family or community contacts, and (2) for the cost of maintenance of county patients to be shared by State and County. The State funds for the operation of such a sanatorium should be by legislative appropriation. The county funds should be obtained by local vote, under the anticipated Constitutional Amendment providing for a tax up to 10c on $100 valuation. The county tax would be that part of 10c, but not over 10c, estimated to cover the needs of public health and tuberculosis.

This plan should enjoy the active support of all county officials, since it provides for voluntary support of the county, and financial obligations assumed by it are in direct relation to the individual county tuberculosis program. A most persuasive angle should be the fact that the plan offers the county a solution to a major part of the tuberculosis program at less expense than the county could ever hope to achieve individually. This Texas plan, with modification to meet their individual needs, may be adopted for use by other states along the border between the United States and Mexico.

To accomplish these worthy objectives, endorsement by the United States-Mexico Border Public Health Association is desirable and concerted efforts are necessary. The plan must enjoy the active support of the public, local government officials, and all the health agencies. The needs for the embodied plan must be impressed on the members of the Legislature, and early action on the legislative calendar must be requested of our law makers, if added protection to Texas citizens against tuberculosis is ever to be attained.

If funds can be obtained for this program, the most fundamental measure leading to control of the disease will have been initiated. The accessory factor leading to eradication of this scourge will soon follow from these early footsteps. To say that in our present tuberculosis plight, these isolation and treatment facilities are needed, is a vast understatement of their importance. Properly phrased, these required weapons to combat the disease are a *must* in our public health efforts.

ADOPTION AND FERTILITY

Although statistical studies are not available comparing the incidence of pregnancy among previously sterile women who adopt children with the incidence among those who do not, if they were available they probably would show that the incidence is the same in the two groups, *The Journal of the American Medical Association* for October 7 says in answer to a query. If a woman, sterile for some years, adopts an infant and subsequently becomes pregnant, it strikes every one as a startling event and is long remembered. On the other hand, if the same woman had not adopted an infant and had become pregnant, the occurrence would be much less dramatic and few people would pay much attention to it.

LESS SICKNESS RISK FOR TEXANS

CHAUNCEY D. LEAKE, Ph. D.
Dean, University of Texas, School of Medicine
GALVESTON, TEXAS

The title of this talk has been chosen rather carefully. Emphasis is placed on *sickness risk* rather than on "health insurance," because it is important to get people to think about the risk of sickness. To have less risk of sickness, help is needed from two sources. One is the promotion of public coordination and public support for what is called public health. The second involves the general practitioners of medicine and their individual patients. Less risk of sickness implies, first, better public health through improved public support and public coordination and, second, more effective prevention of disease through the activities of the bulk of the medical profession with the coöperation of the individual patients.

Fully 85 per cent of the ordinary illnesses of individuals can be taken care of by the general practitioner with the equipment which he ordinarily carries in his hand bag, either at his office or at the home of his patient. This figure has been established in surveys made in North Carolina, Illinois and the Pacific Coast. It suggests that perhaps only 15 per cent of the sicknesses of people are appropriate for hospitalization. It also suggests that perhaps only 15 per cent of the medical practitioners need undergo long special training fitting them for specialty practice. On the other hand, the rewards of specialism are of such a character as to persuade most doctors to seek to enter the specialties. A survey at Duke University indicated that 25 per cent of the students there have selected their specialties by their sophomore years. If we are all going to be specialists, we are not going to get the close personal relationship between the doctor and his patient that offers the best opportunity for the prevention of disease.

My first important point is to quite respectfully suggest that *preventive medicine become the specialty of the general practitioner.* In order to make preventive medicine attractive as a specialty, it is incumbent upon us to provide some way to secure a financial rating for the general practitioner which is comparable to that enjoyed by other specialists. An available method is that which is commonly practiced in other professions, such as law and engineering; that is, by the use of the retainer fee. I see no reason why a general practitioner cannot make, on the basis of his own judgment, and in a way satisfactory to the particular family with which he is dealing, an agreement to provide appropriate preventive medical attention on a retainer fee basis. In some parts of the country this is already standard with respect to obstetrics and pediatrics. It suggests a method whereby preventive medicine may be practiced by the general practitioner in a remunerative way comparative to the general practitioner and helpful to the bulk of the people.

BETTER PUBLIC HEALTH THROUGH BETTER PUBLIC SUPPORT

In Texas I think that we have made remarkable progress in public health, with unfortunately limited funds. We may, I think, be very proud of our achievements under the handicap of extremely weak State support. I do not know whether it is generally appreciated that the State appropriation for public health is less than the State appropriation for liquor control. We have, I regret to say, perhaps the lowest per capita expenditure for public health of any State in the Union. Unfortunately, I think, there is also a correlation between that fact and the further fact that we have the highest incidence generally of preventable diseases. One of our most important needs, then, it seems to me, is for us to obtain a greater degree of public support for public health. But even with the limited funds which have been provided by this State, health officials have achieved much success.

1. In the first place, they have promoted education broadly among the people with regard to public health. This has been a recent development through bulletins, newspaper releases, class work in school, and befort various civic organizations, but it has laid the necessary ground work for future success in public health. In mental hygiene, this educational effort is aided greatly by the Hogg Foundation for Mental Hygiene of the University of Texas. How fine it would be if it were possible for all of the bulletins of the State Board of Health to be distributed throughout the State to every citizen! A broad health education program remains the most important factor in the success of a public health effort.

2. In the second place, our health officials have achieved rather remarkable success in general sanitary control. This has been particularly so in mosquito abatement, thanks to joint State and Federal efforts. They lack sufficient inspecting personnel to control food distribution and eating places, and thus prevent the astonishing diarrheas of Texas. They appreciate our dangers from rats and flies, but they lack enough funds for effective control. Thanks to the stimulus of the war, they have achieved considerable success in venereal disease control, a matter that

Address delivered before the Section on Public Health, State Medical Association of Texas, Austin, April 19, 1944.

has been a great disgrace in this area. We still lack effective sanitary control in many respects but we have made a fair start, and we know what to do, if we have support enough to do it.

3. In the third place, we have achieved rather remarkable success in the development of health units both in the city and county areas, but we still have a long way to go. We will consider in a moment what we need to do to extend our health units.

4. In the fourth place, we have inaugurated a series of important surveys, which give us the basic knowledge with respect to control of disease and health conditions in the State. We possess, for example, excellent surveys on the incidence of mental disorder, on the relation of dental caries to fluorine content of waters, and on the distribution of open cases of tuberculosis.

Finally, I believe our health officials have achieved great success in public health in Texas in connection with the excellent laboratories maintained by the State Department of Health for vaccines, diagnostic services and for administrative aid generally.

Unfortunately, all of these achievements are not due to our own efforts. We have had the extraordinary assistance of the U. S. Public Health Service in this State perhaps to a greater degree than in any other State in the Union. This has come about largely because of the peculiar characteristics of the State of Texas, which has great urban centers, as well as tremendous rural areas where economic conditions are such as to make it impossible to support local physicians. Then, too, the presence of so many men in training for military service in Texas has created the necessity of providing adequate public health protection for them. We have profited by the assistance of the U. S. Public Health Service, but I believe that it is up to us to carry on when Federal support, as reflected by the military need, is withdrawn.

Then, also, in Texas we have fortunately had the support of private enterprise with respect to public health. An outstanding example is the Hogg Foundation for Mental Hygiene, in the State University. Thanks to the funds available through the Hogg Foundation, we have established throughout the State important centers for the spread of information on the prevention of mental disorders and on the maintenance of sound mental health. As another example, we have the recently established Child Health Program in the Department of Pediatrics, of the University of Texas Medical School, at Galveston. This program is supported by the William Buchanan Foundation, of Texarkana. This effort is certain to result in vastly improved conditions in child health throughout the State. The prime purpose of the program is to improve the competence of the general practitioner of medicine, not only in handling childhood diseases, but also in preventing child disorders. On the basis of public confidence in the satisfactory professional handling of diseases of children, it may be expected that this program will extend to a more widespread general educational effort in the attempt to promote child health.

In spite of our promise of achievement in public health in Texas, there remains a vast number of public health problems which we must begin to plan to meet. I will not say, at least too loudly, that we still lack real public health in Texas, but I could pretty nearly say so. I won't say that it is a shame and disgrace that we have so much preventable disease as we do have. That would not be nice to say, but I think we all know it. I think we all may agree that we still have too great a risk of sickness in Texas, and that we need greatly increased public support to reduce it.

PUBLIC HEALTH NEEDS IN TEXAS

The first great need that we have in our public health problem in Texas is to secure better and more understanding *coöperation from physicians in public health efforts.* Naturally, physicians these days are hesitant with regard to public health, because public health smacks of that which is feared so greatly and which is called, I think unfortunately, "socialized medicine."

This fear tends to make physicians reluctant to give wholehearted support to public health work. There is a resulting tendency for doctors to shirk two definite and necessary professional duties. The first is to report diseases as stipulated by law. Our health statistics in Texas are seriously open to question, good as they seem to be, because so many physicians fail to report diseases as required by law. This failure is serious in tuberculosis and venereal disease. The second duty of the doctor is to render regular advice to individual patients on effective methods of preventing disease.

Every physician must think carefully of the extent to which he is committing professional suicide by promoting the prevention of disease, since under current conditions his income depends upon the presence of disease. My suggestion is to *charge a retainer fee for regular care in preventing disease.* If physicians become financially interested in preventing disease, I believe they will wholeheartedly support public health efforts. Retainer fees for regular care in preventing sickness are sound economically, sound prac-

tically, and sound with respect to what are called the ethics of the profession. But regardless of this economic device to promote professional interest in public health, the fact is that effective public health service in a community promotes the average doctor's income. This results from the increased interest of the people of a community in their individual health problems with consequent greater tendency to consult their family physicians about them. Greater coöperation from physicians in public health work pays both the physicians and the public.

The second great public health need in Texas, it seems to me, is to give increased attention to reducing health hazards in industry. More public funds are needed for a greater educational effort on the part of the State Department of Health, so that information on the prevention of disease can be brought to every citizen. More funds are needed, so that the State Health Department can inaugurate a program for an Industrial Hygiene Division. Texas is certain to be a great center for industrial development. It is coming with extreme rapidity in the Beaumont, Galveston and Houston area, in the growth of large new chemical and oil industries. There is bound to be a continuation of the aviation industries around Dallas and Fort Worth. Certainly there will come much industrialization in many parts of the State. I think that it is incumbent upon us to provide the funds to take care of the industrial hazards of workmen, and to assure them of protection against such hazards.

The third great need for public funds, so far as promotion of public health is concerned, is for *sanitary control.* We lack funds sufficient to insure proper sanitary inspection and control in small communities in the rural areas, and, unfortunately, even in our large cities. Our people need to be educated on all phases of sanitation. We all, for example, like to spit. We are proud of knowing how to spit well, but we might not be so willing to indulge in our spitting proclivities if we realized how they effect public health. We must stop spitting, if we wish to reduce our high risk of tuberculosis.

Our eating places are bad. In most small communities in Texas they are disgraceful. Again I do not think that neglect of sanitary cleanliness in eating places is willful. The people who are running these establishments are simply ignorant of sanitary precautions. Most of us are loathe to keep as neat, and as clean, as we should, and to maintain our premises in clean order. We lack the number of sanitary inspectors that are needed to keep our communities clean, and free from rats, flies, and mosquitoes. We lack the funds for proper sanitary control, or for epidemic control. We are faced with the possibility of epidemics on all fronts. The high incidence of preventable disease in Texas speaks with shame. This high incidence is due to lack of knowledge on the part of the people, because we have not had the funds to educate them on how to prevent communicable diseases. It is shameful that at this time in Texas there should be any deaths from diptheria, or smallpox, or typus, or rabies. We need funds to reduce the risk of sickness for our children.

Finally, to fill a great need in public health development in Texas, it seems to me that *we should develop a potent school of public health.* The University of Texas Medical School, in Galveston, has an excellent Department of Preventive Medicine that could serve very satisfactorily as a nucleus for a School of Public Health. There is, however, not a real center for public health training and research in the great Southwest. There is no place nearer than Nashville, Tennessee, or Chapel Hill, North Carolina, for the training of public health officers or public health nurses.

The need for public health workers in Texas may be variously estimated for county, city and state health officers, sanitarians, food and drug inspectors, epidemiologists, entomologists, statisticians, industrial hygienists, laboratory workers, public health nurses, and public health educators. We may accept Dr. Haven Emerson's criterion of units of at least five full-time public health workers for communities of 35,000, with proportional increases for the larger cities. Perhaps we need two thousand or more full-time public health workers for the present. Perhaps we need as many public health nurses for our large rural areas alone, where in so many instances economic circumstances are such as to make it impossible to support physicians in private practice.

Whatever the number, these public health workers have to come to us from other schools and other places. We have no place to train them ourselves. For those actually placed after the need is established, the annual attrition may be guessed at 5 per cent. This means that we must have a School of Public Health in Texas capable of training somewhere around 50 to 100 public health workers per year, to take care of the loss annually to be expected.

It seems, therefore, that there is a great need for a center for training and research in public health in Texas. It would seem wise for it to be a part of the Health Program of the University of Texas. May I cordially commend to the State Medical Association a resolution that a School of Public

Health be established in the University of Texas to provide for this outstanding need? Such a school would, of course, be a center for research into the peculiar health problems in Texas, where the tropics meet the temperate zones, where tropic indeed, meets the arctic, where there is a great variety of racial stock, where there is a rich variety of preventable and exotic diseases and a great opportunity for promoting the best of health, safety and hygiene. With the possibility by rapid transport of bringing into this area all types of disease, there should be a center for research in the control of whatever diseases are likely to be found. This center should include research in industrial hygiene. It should render the people full service in all fields that bear upon the prevention of disease and the promotion of public health, in close coöperation with the State Department of Health. Such a school would meet what is perhaps the most pressing health problem in Texas.

CONCLUSION

Let me close by pleading again for close coöperation between practicing physicians and public health workers. Let me assure you that the University of Texas Medical Branch will continue to discharge its full obligation to the people in training future physicians to realize the importance and advantage of practicing preventive medicine, and in coöperating with the public health workers. Let me suggest that joint meetings between public health workers and practicing physicians for postgraduate study in preventive medicine might be an appropriate part of the postgraduate training program which the Medical Branch hopes to promote. Let me urge earnestly that the people of Texas, through their Legislature, provide much greater support to the promotion of public health in Texas. Finally, let me propose that a School of Public Health as part of the Health Program of the University of Texas, might become most fittingly a means of helping to meet our really serious public health needs, and thus to reduce our sickness risks.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, May 7, 8, 9, 10, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, Philadelphia, June 18-22, 1945. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association. Dr. Edgar G. Ballenger, Atlanta, Ga., President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. F. H. Rosebrough, San Antonio, President; Dr. M. K. McCullough, Dallas, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, Fort Worth, February. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Dallas, October, 1944. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association, Galveston, May 7, 1945. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, May 7, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Society for Mental Hygiene. Dr. Charles W. Castner, Capitol Building, Austin, President; Miss Jennie S. Wilmot, University of Texas, Austin, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. J. B. White, Amarillo, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians, Galveston, May 7. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society. Dr. D. D. Cross, Lubbock, President; Dr. Ben Blackwell, Fisk Building, Amarillo, Secretary.

Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. J. W. Foy, Seymour, President; Dr. Joe R. Wise, 1212 W. Lancaster, Fort Worth, Secretary.

Fourteenth District Society. Denison, December. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

The danger to others of communicable tuberculosis among elderly persons is great. Many of them are grandparents and it is not unusual to trace fatal tuberculosis in children and others to them. Casparis cited the case of several young Negro maids who had successively died while working in one home, or soon after. Investigation revealed the fact that an elderly white man in this home had communicable tuberculosis which was previously unsuspected.—*J. Arthur Myers, M. D., Modern Hospital*, April, 1944.

HOSPITALS NEEDING INTERNS AND RESIDENTS

All Saints Hospital, Fort Worth. Capacity, 100; admissions, 4,819; Miss Eva Wallace, Superintendent (2 residents needed now).

Austin State Hospital, Austin. Capacity 2,810; admissions 1,060. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Miss Ellen Louise Brient, R. N., Superintendent (2 interns, October 1; 1, January 1, 1945).

Wichita General Hospital, Wichita Falls, capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (2 residents needed at once. Salary $175.00 and maintenance).

WARNS AGAINST RANCID LARD

Food mixtures containing lard should not be allowed to stand and when storage is necessary it should be at a subfreezing temperature, *The Journal of the American Association* for October 28 warns in an editorial. This warning would apply to such preparations as biscuit mixes, pie crust, etc.

The Journal's editorial discusses recently reported studies which showed that rancid lard when mixed with other foods completely destroyed vitamin E and that the development of rancidity is more rapid in food mixtures than in unmixed lard. It is pointed out that physiologists have long recognized that when mixed with other foods, rancid fats destroy such essential food elements as vitamin A, carotene, vitamin D, vitamin E and others. Recently O. G. Fitzhugh, of the Food and Drug Administration, and his associates reported studies with rats which demonstrated the complete destruction of vitamin E by the rancid lard in their diet.

TRANSMISSION OF INFANTILE PARALYSIS

"The method of transmission of the virus of poliomyelitis," *The Journal of the American Medical* Association for October 21 says in answer to a query, "has not yet been clearly demonstrated. . . . The virus has been found consistently in the alimentary tract and stools of both patients and contacts. While a large body of circumstantial evidence supports the theory of direct contact from patient to patient, there is also the fact that the virus has been recovered repeatedly from flies trapped in epidemic areas. However, the importance of the fly as a vector has not yet been clearly demonstrated. It is not possible in the present state of knowledge to say whether the contamination of the fly with virus is a result of a disease or a causal factor in it. The seasonal incidence of . . . epidemics, combined with the finding of virus in the human alimentary tract, stools, sewage and flies, lends weight to the contention that poliomyelitis is primarily an intestinal disease such as typhoid and dysentery . . ."

AMERICAN COLLEGE OF PHYSICIANS REGIONAL MEETING

A regional meeting of the American College of Physicians embracing the states of Arkansas, Tennessee, Mississippi, Louisiana and Eastern Texas, will be held January 25 and 26 in Memphis, Tennessee, advises Dr. M. D. Levy of Houston, governor of the American College of Physicians for Texas. On one day a clinical pathological conference will be presented in addition to papers, and on the second day, a symposium on malaria will be held. The program is under the direction of Dr. Wm. Calvert Chaney, Memphis, governor of the College of Physicians for Tennessee. Physicians in good standing in their state associations are invited to attend the sessions, and there is no registration fee.

PREMARITAL BILL*

Section 1. No marriage license shall be issued unless each applicant files with the county clerk a certificate from a licensed physician and surgeon authorized to practice in Texas which certificate shall be made after an examination of the applicants by said physician and surgeon and shall state that the applicants have been given an examination, including a standard serologic test for syphilis, said examination to be made not more than fifteen days prior to the date of issuance of such license and that in the opinion of such licensed physician and surgeon each applicant either is not infected with syphilis or other venereal disease, or if so infected, is not in a state of such disease which is or may become communicable.

Section 2. The certificate shall be accompanied by a report from the person in charge of the laboratory making the standard serologic test, or from some other person authorized to make such reports, setting forth the name of the test, the date it was made, the name and address of the physician and surgeon to whom the report was sent, and the name and address of the person whose blood was tested, but not stating the result of the test.

Section 3. The certificate and report shall be on a form to be prepared and provided by the State Board of Health to approved laboratories in the state. This form is referred to in this act as the certificate form.

Section 4. For the purpose of this act, a standard serologic test shall be a test for syphilis customarily made for such purposes and to be approved by the State Board of Health, made in a laboratory approved by the State Board of Health. Only those certificate forms, required under this act, shall be accepted by the county clerk, as accompanying the physician's certificate, which show that a standard serologic test for syphilis as defined in this section, was made. It shall be the duty of the State Board of Health to furnish the county clerk of each county a list of approved laboratories and approved serologic tests, as described in this section.

Section 5. Upon a separate form to be furnished by the State Board of Health a detailed report of the examination or approved serologic test, showing the result of the examination or test, together with the certificate form, shall be transmitted by the laboratory to the certifying physician, and a copy of the detailed report of the laboratory shall be submitted to the State Board of Health, where it shall not be open to public inspection; provided that it may be produced for evidence at a trial or proceeding in a court of competent jurisdiction, involving issues in which it may be material and relevant, on an order of a judge of the court requiring its production, and provided also that it may be used in the compilation of aggregate figures and reports, without disclosing the identities of the persons involved.

Section 6. Before the county clerk issues any marriage license, he shall attach thereto the above men-

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tioned certificate form of each applicant or the court order provided for in Section 8.

Section 7. No person authorized to perform marriage ceremonies in Texas shall perform any ceremony unless the certificate form of each party, or the court order dispensing therewith, is attached to the marriage license, and they shall remain so attached until the marriage certificate is filed with the county clerk.

Section 8. Any judge of the county court within the county in which the license is to be issued is authorized and empowered, on joint application by both applicants for a marriage license to waive the requirements as to medical examinations, laboratory tests, and certificates and to order the county clerk to issue the license, if the judge is satisfied by proof that sufficient cause for such action exists and that the public health and welfare will not be injuriously affected thereby. The order of the court shall be filed by the county clerk in lieu of the certificate form. All records connected therewith shall be held in absolute confidence and shall not be open to public inspection and the hearings on the application shall not be made public.

Section 9. Nothing in this act shall impair or affect existing laws or rules or regulations made by authority of law, relative to the reporting of cases of venereal diseases discovered by physicians in the course of their practice.

Section 10. Marriage license issued under the provisions of this act shall become void and of no effect unless the marriage be solemnized within fifteen days from the date of the examination, and no person authorized to solemnize marriages shall perform said marriage and if he does so, he shall be punished as provided for herein.

Section 11. Saving Clause. In the event any section, or part of section, or provision of this act be held invalid, unconstitutional, or void, this shall not affect the validity of the remaining sections, or parts of sections of this act.

Section 12. Penalty. Any person who misrepresents any fact required to be stated on the certificate form or any other form required by this act, or any county clerk who issues a marriage license without having received the certificate form or an order from the court, or any person performing a marriage ceremony in violation of the provisions of this act shall be guilty of a misdemeanor and upon conviction fined not less than two hundred dollars or more than five hundred dollars.

PRENATAL BILL*

Section 1. A physician after examination who has reasonable grounds for suspecting pregnancy exists, and every physician or other person legally permitted in Texas to attend in delivery or child birth, shall take or cause to be taken a specimen of blood for standard approved serologic test for syphilis. In case the woman is in a stage of labor at the time the diagnosis of pregnancy is made, which may make it inadvisable to obtain the blood specimen then, the specimen shall be obtained within five days after the delivery. The specimen of blood shall be submitted to an approved laboratory for approved serologic test for syphilis.

Section 2. A standard serologic test for syphilis shall be a test for syphilis customarily made for such purpose and to be approved by the State Board of Health made in a laboratory approved by the State Board of Health.

Section 3. The physician who takes or causes to be taken from a woman in pregnancy or suspected pregnancy a blood specimen for standard serologic test for syphilis shall identify such specimen with her name and address when submitting it to an approved laboratory for the test, and said laboratory shall provide a report in triplicate on forms prepared by the Texas State Health Department of results of such tests. The original of each such report shall be sent to the physician submitting the specimen; a duplicate shall be sent to the Texas State Health Department, Austin, Texas, not later than one week after the examination has been made; and the triplicate shall be retained by the laboratory for its files.

Section 4. Every physician or other person required to report births or still births shall state on each birth certificate or still birth certificate, as the case may be, whether a blood test for syphilis was made during such pregnancy or within five days thereafter.

Section 5. Nothing in this act shall impair or affect existing laws or rules or regulations made by authority of law, relative to the reporting of cases of venereal diseases discovered by physicians in the course of their practice.

Section 6. Saving Clause. That in the event any section, or part of section or provision of this act be held invalid, unconstitutional, or inoperative, this shall not affect the validity of the remaining section, or parts of sections of this act.

Section 7. Penalty. Any physician or other person legally permitted to engage in attendance upon a pregnant woman during the period of pregnancy or at delivery who shall violate any provisions of this act shall be guilty of a misdemeanor and upon conviction shall be fined not less than two hundred dollars or more than five hundred dollars.

STANDARD HEALTH UNIT BILL*

ART. I. Definition.

Section 1. A Standard Health Unit is defined as an organized health service within a city or cities, within a county or counties, with full-time public health trained personnel consisting of at least a director, a public health nurse, a sanitarian, and an office clerk, and may include such other personnel and specialists as may be required; coöperating and receiving financial assistance from the State Board of Health.

ART. II. State Health Officer to Coöperate. The State Health Officer shall be authorized to coöperate in the organization, financing and operation of Standard Health Units for any political subdivision or subdivisions of the state.

ART. III. Counties and Municipalities May Coöperate. The commissioners court of any county and the municipal authorities of cities, towns, school boards, and other tax assessing and collecting agencies within the county may coöperate in the establishment of a Standard Health Unit, and by mutual agreement, may provide for the payment of costs, including the salaries and travel of persons employed and the provision of suitable office quarters, health centers, or clinics, and their maintenance.

ART. IV. Commissioners Courts May Coöperate. The commissioners courts of two or more adjoining counties and any or all municipalities and school districts within such adjoining counties may agree on the establishment and maintenance of a Standard Health Unit, and may provide or contribute to

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salaries and travel of personnel, and may provide quarters, health centers, clinics and their cost of maintenance by mutual agreement.

ART. V. Local Bodies May Request Aid. All local governing bodies may request financial and technical assistance of the State Health Officer in the establishment and maintenance of a Standard Health Unit. The State Health Officer shall have authority to provide assistance from funds appropriated for this purpose.

ART. VI. Director: Appointment and Removal.

Section 1. A director shall be appointed to actively manage and operate the health unit. The director of the health unit shall be a physician, licensed by the Texas State Board of Medical Examiners, and shall meet the minimum qualifications of public health training and experience established by the State Board of Health for directors of units.

Section 2. In all such health units where the State Board of Health contributes funds for the operation of such unit, the director shall be appointed in the following manner: The State Health Officer shall submit the names of at least three qualified directors to all local governing bodies appropriating funds for the operation of the unit. The said local governing bodies,. by joint action or by concurrent agreement may appoint one of the three qualified directors as the director of the Standard Health Unit.

Section 3. The local governing bodies contributing funds for the operation of Standard Health Units may reject any or all names submitted by the State Health Officer for the position of director, and the State Health Officer shall submit additional names of physicians qualified for the position until a nominee who meets the approval of the said local governing bodies is agreed upon and appointed. In health units receiving state funds, the director so appointed must at all times meet the approval of the State Health Officer and the local governing bodies. The failure of a director to meet the approval of the State Health Oficer and the local governing bodies shall be considered grounds for his removal from office.

ART. VII. Directors of Health Units Designated as Deputy State Health Officer. Upon selection of a director for a health unit, the State Health Officer may designate the director as a Deputy State Health Officer in and for the area, and may clothe him with authority as his special representative to carry out such duties within the powers of the State Health Officer, as the State Health Officer may deem necessary.

ART. VIII. Duties of Directors of Standard Health Units.

Section 1. Director Shall Be Responsible for Enforcing Regulations. Directors of Standard Health Units shall be responsible to the governing bodies of the several muncipalities and counties within his jurisdiction for the enforcement of laws and ordinances for the protection of the health of the people, and for the carrying out of such duties in the prevention of diseases as may be prescribed for him by the local governing bodies. He shall discharge and perform such duties as may be prescribed for him under the direction, rules, regulations and requirements of the State Board of Health.

Section 2. Right of Entry. For the purpose of inspection to determine conditions or practices which may be in violation of any public health law or ordinance, for the investigation of complaints alleging such violations and for the institution of measures to enforce compliance with public health laws or ordinances, directors of Standard Health Units and their assistants; sanitarians, nurses, and other authorized agents are hereby directed and empowered to enter any portion of any public building or premises within the jurisdiction of the health unit at any time. The health unit director, his assistants, sanitarians, nurses and other authorized agents are likewise directed and empowered to enter private premises in company with the householder for the purpose of investigating and correcting alleged insanitary conditions dangerous to public health and for the investigation and control of known or suspected diseases for which reporting isolation or quarantine are prescribed.

Section 3. Director of Standard Health Units Responsible for Disease Control. The director of any Standard Health Unit shall aid and assist the State Board of Health in all matters of quarantine, vital and morbidity statistics, inspection, disease prevention and suppression, health education and sanitation within his jurisdiction. He shal report to the State Board of Health, in such manner and form as the State Board may require, the presence of all reportable diseases.

Section 4. Director of Standard Health Units Shall Make Surveys. The directors of Standard Health Units shall make surveys and reports on health conditions and hazards in the form and manner requested by the commissioners courts, local authorities, or State Health Officer, where special need arises, and shall each year submit an annual report to those authorities describing the activities of the unit and evaluating the results of the program in meeting public health needs and making recommendation for improvement of conditions and services. The State Health Officer will have the authority to prescribe the form of this report.

Section 5. Director of Standard Health Units Shall Administer the Standard Health Unit. The director of a Standard Health Unit shall be the administrative head of the Standard Health Unit to which he is assigned and shall select as members of the staff individuals meeting the minimum qualifications established by the State Board of Health for the positions to be filled. The State Health Officer may withhold financial aid in those cases where such qualifications are not met.

Section 6. Removal of Directors of Standard Health Units. Failure or refusal of the director of a Standard Health Unit to properly perform the duties of the office as prescribed in this act shall subject the director of the Standard Health Unit to removal from office, by appointing authorities.

ART. IX. Statement of Intention to Operate Health Unit and Appointment of an Acting Director.

Section 1. The governing body or bodies of incorporated city or cities and of county or counties desiring to continue the health until upon withdrawal of approval as mentioned in Sec. 3, Art. VI herein; or upon withdrawal of funds as mentioned in Sec. 5, Art. VIII, shall within ten days, file with the State Board of Health, Austin, Texas, a statement of intention to continue said health unit, and an acting director shall be appointed as herein provided. Upon failure of the said governing body or bodies to file said intention within said ten day period, such health unit will automatically cease to exist and the laws relating to city and county health officers shall thereupon become effective.

Section 2. During periods of time while a vacancy exists in the position of director of a Standard Health Unit, the State Health Officer may designate an acting director to serve on a temporary basis until such time as the director of a Standard Health Unit is selected in accordance with the provisions of this law. Such acting director shall have the responsibility and authority to act during the tenure of his appointment which is provided for directors of health units.

ART. X. To Amend Article 4423, Revised Civil Statutes of Texas (1925); So as to Hereinafter Read as follows:

Section 1. The commissioners courts of only those counties where there is no Standard Health Unit established, by a majority vote, in each organized county shall biennially appoint a proper person for the office of county health officer for this county, who shall hold office for two years. Said county health officer shall take and subscribe to the official oath and shall file a copy of such oath and a copy of his appointment with the State Board of Health; and, until such copies are so filed, said officer shall not be deemed legally qualified. Compensation of said county health officer shall be fixed by the commissioners court; provided, that no compensation or salary shall be allowed except for services actually rendered.

ART. XI. Providing for City and County Physicians and Their Duties in Areas Served by Standard Health Units by Amending Article 4424 So as to Hereinafter Read as Follows:

Section 1. Commissioners Court Shall Select. The commissioners court of each county where a Standard Health Unit is established shall biennially select by a majority vote a county physician who shall be a physician of reputable professional standing and licensed to practice medicine by the Texas State Board of Medical Examiners. Compensation shall be fixed by the governing body.

Section 2. Governing Bodies of Municipalities Shall Select. The governing body of each incorporated city and town within the state where a Standard Health Unit is established shall biennially select by a majority vote a city physician who shall be a physician of reputable professional standing and licensed to practice medicine by the Texas State Board of Medical Examiners. Compensation shall be fixed by the governing body.

Section 3. In Counties or Cities Where no Physician Resides. A reputable, licensed physician from a nearby city or town may be designated to serve as a city or county physician.

Section 4. Duties of City and County Physicians. The city and county physician shall be responsible for caring for the prisoners in city and county jails respectively, and for caring for the inmates of poor farms or hospitals maintained by the county or municipality, and for carrying out such duties as may be legally imposed by the governing body of the municipality or the commissioners court of the county. The city and county physicians shall aid the director of the health unit in all matters relating to the control of health hazards.

Section 5. In cities and towns not served by a Standard Health Unit, the office of city physician is abolished, and instead the office of city health officer is created. The office of city health officer shall be filled by a competent physician, legally qualified to practice medicine within this state, of reputable professional standing.

ART. XII. To Amend Article 4425 So as to Hereinafter Read:

Section 1. The governing body of each incorporated city and town within the state where a Standard Health Unit is not established shall elect a qualified person for the office of city health officer by a majority of the votes of the governing body, except in cities which may be operated under a charter providing for a different method of selecting city physicians, in which event the office of city health officer shall be filled as is now filled by the city physician, but in no instance in incorporated cities and towns where a Standard Health Unit is not established, shall the office of city health officer be abolished. The city health officer, after appointment, shall take and subscribe to the official oath, and shall file a copy of such oath and a copy of his appointment with the State Board of Health, and shall not be deemed to be legally qualified until such copies shall have been so filed; provided, in all incorporated cities and towns now or hereafter served by a Standard Health Unit within the provisions of this law, which by ordinances duly enacted and in force, provision is made for a city health officer, or city physician, to perform certain duties; the director of the Standard Health Unit shall perform the duties therein prescribed for the city health officer, or city physician except where in conflict with the provisions of this law.

ART. XIII. Declaring an Emergency.

Section 1. The fact that our present laws are inadequate creates an emergency and an imperative public necessity that the Constitutional Rule requiring bills to be read on three several days in both Houses is suspended, and such rule is hereby suspended, and this act shall take effect and be in force from and after its passage, and it is so enacted.

TEXAS SOCIETY FOR MENTAL HYGIENE MEETING

The Texas Society for Mental Hygiene will hold its twelfth annual state conference on March 8 and 9, at Austin, with headquarters at the Driskill Hotel. Announcement is made thus far in advance so physicians interested in this meeting will make plans to attend and make early reservations. The general conference themes for the meeting will be "Mental Hygiene in Everyday Living and Developing a Mental Hygiene Charter for Texas." Since the 49th Texas Legislature will be in session at the time of the conference, a shortage of hotel space is anticipated. For that reason, those attending are requested to stay with friends in Austin, if possible, or to reserve hotel space in groups of three and four, since single rooms will not be available.

PENICILLIN FAILURES

"Pencillin failures," Arthur L. Bloomfield, M. D.; William M. M. Kirby, M. D., and Charles D. Armstrong, M. D., San Francisco, say in *The Journal of The Americal Medical Association* for November 11, "for the most part fall into the following groups: cases in which the treatment is too brief or the daily dose too small; cases in which pencillin fails unless surgical drainage is also done; overwhelming infection, even with a sensitive strain (of the invading organism)."

Sound public health practice demands that the method used in mass radiography for the control of the tuberculosis be one which benefits the largest number of persons in industry or the community. When available funds are limited, it is of greater value to examine 100,000 persons with small films and miss a few minimal cases than to examine only one-tenth of that number at about the same cost, using large celluloid films and leaving 90,000 persons without benefit of any x-ray examination whatever.—*H. E. Hilleboe, M. D.*, and *D. M. Gould, M. D., J. A. M. A.*, May 24, 1944.

In certain infectious diseases, treatment of the patient is only part of the physician's duty. The elicitation and examination of all who have had suspicious contact with the infected individuals are an indispensable control measure. Tuberculosis and the venereal diseases are outstanding examples of the need for this precaution. To treat the patient without discovering the probable source and possible channels of spread of the disease is to save one tree and let the forest burn.—*Ed., Jour. Med. Soc. Co. of N. Y.*, July 1, 1944.

DALLAS ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY MEETING

The Dallas Academy of Ophthalmology and Otolaryngology will hold its regular monthly meeting January 2, at the Dallas Athletic Club. A dinner honoring the speakers will precede the following scientific program:

Vaccines and Serums of Advantage in Ophthalmology—Speight Jenkins, M. D., Dallas.
Vaccines and Serums of Advantage in Otolaryngology—John L. Jenkins, M. D., Dallas.
Research in Vaccines and Serums—Sol Haberman, M. D., Dallas.
Conclusions—J. H. Black, M. D., Dallas.

Dr. C. A. Hoefer will act as commentator, and Dr. John Goforth and Dr. Lyle M. Sellers as discussers.

Members of the State Medical Association of Texas are welcome to attend meetings of this organization, advises Dr. Ruby K. Daniel, president.

SOUTHERN SECTION AMERICAN FEDERATION FOR CLINICAL RESEARCH MEETING

The Southern Section of the American Federation for Clinical Research is planning a two-day meeting to be held in Dallas the latter part of January, 1945.

Investigators who wish to present papers are requested to submit an abstract of not over 200 words to the chairman, Dr. Alfred W. Harris, 812 Medical Arts Building, Dallas 1, Texas, by January 1, 1945.

A. M. A. MEETING PLACE CHANGED

Because of conditions brought about by the war the necessary facilities will not be available in New York City for the 1945 annual session of the American Medical Association, scheduled for June 11 to 15, and thus it will have to be held in some other city where adequate facilities will be available, it is reported in the November 11 issue of *The Journal* of the Association. The announcement says:

"The House of Delegates of the American Medical Association at the annual session held in 1942 selected New York City as the place of meeting for the 1945 annual session. Certain preliminary arrangements were completed, but investigations recently made in New York clearly indicate that the necessary facilities will not be available in that city in 1945 because of conditions created by the war emergency. It is with regret that it is necessary to make the announcement that the annual session scheduled for New York, June 11 to 15, 1945, will have to be held in some other city where adequate facilities will be available. Under the direction of the Board of Trustees necessary investigations are now in progress and definite announcement as to the place of meeting for 1945 will be made through the columns of *The Journal* at the earliest possible time."

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during November:

Dr. Paul K. Conner, Jackboro—*Blood, groups* (20 articles); *Hemorrhoidectomy* (1 article).

Dr. Vernon A. Black, Wharton—*Retina, detached* (17 articles).

Dr. G. V. Launey, Grand Prairie—*Anaphylaxis and Allergy, serum and vaccine* (17 articles.)

Library, Southwestern Medical College, Dallas—(4 journals) 4 packages.

Lt. Matthew A. Bucca, Camp Gruber, Oklahoma—*Monoliasis* (21 articles).

Dr. G. T. Vinyard, Amarillo—*Electricity, injuries* (10 articles).

Capt. N. A. Masor, Camp Maxey—*Extremities, blood supply* (15 articles); *Extremities, surgery* (11 articles).

Capt. David A. Nathan, Camp Maxey—*Emphysema, mediastinal* (12 articles); *Rheumatic Fever, therapy* (9 articles).

Lt. Col. M. P. Starr, San Antonio—(3 journals) 2 packages.

Dr. E. O. Nichols, Plainview—*Sex, frigidity* (8 articles).

Dr. T. L. Lauderdale, Fort Worth—*Angina, Ludwig's* (10 articles).

Dr. C. L. Prichard, Abilene—*Gallbladder, therapy* (21 articles).

Dr. J. J. Hanna, Glen Rose—*Drugs, addiction* (19 articles).

Dr. L. J. Prichard, Abilene—*Endometriosis* (14 articles).

Dr. R. L. Powers, San Angelo—*Penicillin* (5 articles).

Dr. H. L. Wilder, Pampa—*Halitosis* (7 articles).

Dr. Charles Mims, Mission—(3 books); (2 articles).

Lt. Col. Richard A. Dathe, Camp Maxey—(1 journal).

Dr. Robert C. Murphy, Wichita Falls—*Hemoglobinuria, paroxysmal* (13 articles).

Maj. Charles H. Brown, Camp Hood—*Epilepsy, etiology and pathogensis* (20 articles); *Brain, electroencephalography* (9 articles).

Dr. R. B. Alexander, Waco—*Encephalomyelitis, equine* (30 articles).

Dr. J. L. Blasingame, Wharton—*Mental Diseases, therapy* (15 articles).

Mr. A. F. Whipple, Fort Worth—(3 journals).

Dr. Oscar Huff, Mason—*Backache* (28 articles).

Capt. Marcus E. Cox, Sheppard Field—*Rheumatism, etiology and pathogenesis* (15 articles).

Mrs. Miriam C. Meisenbach, Wichita Falls—(1 journal).

Capt. W. C. Taft, Sheppard Field—*Relapsing Fever* (27 articles).

Dr. V. E. Schulze, San Angelo—*Strychnine, effects* (15 articles); (1 journal).

Dr. R. P. Jarrett, Canyon—*Vertigo, aural* (28 articles).

Dr. J. W. Torbett, Jr., Beaumont—(6 journals).

Dr. R. R. Swindell, Amarillo—*Medicine, socialized* (15 articles).

Dr. Joseph C. Magliolo, Dickinson—*Medicine, socialized* (15 articles).

Dr. James W. Boyle, Jr., Shiner—*Children, education and training* (7 articles).

Dr. M. W. Rogers, Rule—*Testes, undescended* (14 articles).

Dr. John D. Martin, El Paso—*Tracheotomy* (22 articles).

Dr. Z. C. Fuquay, Mt. Vernon—*Medicine, postwar* (9 articles).

Dr. L. L. Edwards, San Marcos—*Undulant Fever* (26 articles).

Summary

Reprints Received, 1,233	Local Users, 35
Journals Received, 173	Borrowers by Mail. 37
Items Consulted, 372	Packages Mailed, 45
Items Taken Out, 138	Items Mailed, 549

Total Items Consulted and Mailed, 921

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during November:

Falls County Medical Society—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Houston Nutrition Clinic—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Harrison County Medical Society—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Nueces County Medical Society—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Harris County Auxiliary—*Cloud in the Sky* (Available for loan through courtesy of Texas Tuberculosis Association).

Wesleyan Service Guild Polytechnic Methodist Church, Fort Worth—*Cloud in the Sky, Goodbye, Mr. Germ, and Let My People Live* (Available for loan through courtesy of Texas Tuberculosis Association).

Memorial Hospital Staff, Corpus Christi—*Vitamins* (Available for loan through courtesy of Lederle Laboratories).

Dallas County Medical Society, Dallas—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Veteran's Hospital, Dallas—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Women Counselor Groups, Consolidated-Vultee, Inc., Fort Worth—*Psychiatry in Action* (Available for loan through courtesy British Information Services).

NEWS

Providence Hospital Staff, Waco, elected the following officers recently, informs the Waco *Tribune Herald:* Dr. Charles G. Catto, chief of staff; Dr. H. R. Dudgeon, vice-president; and Dr. R. B. Alexander, secretary, all of Waco. The officers were elected on nomination of Dr. W. L. Crosthwait and Dr. F. Wm. Hoehn.

Smith County Society Endorses Rat-Killing Campaign.—The public relations committee of the Smith County Medical Society recently released a statement calling attention to the occurrence of several cases of typhus fever in Tyler, and urging full compliance and support of a rat-killing campaign being conducted by the Smith County Health Unit. The committee also voiced its approval of better garbage disposal in the city, as garbage not only serves as a source of rat sustenance but as a breeding place for flies.—*Tyler Telegram.*

Naval Hospital Assured for Marlin.—The Navy will build a 1,000-bed hospital in Marlin, according to a recent announcement by Vice-Admiral Ross T. McIntire, Surgeon General of the Navy, states the Longview *News.* Although no cost estimates were given because detailed plans had not been completed. it was stated that other hospitals of the size proposed have cost from $5,000,000 to $10,000,000. Texas Congressman Poage stated that Marlin was selected because it is a health resort and expressed the opinion that actual construction might begin within a month. Wounded and sick naval personnel will use the hospital throughout the war and as long thereafter as a need exists. It will then be turned over to the Veterans Administration, according to Senator Tom Connally.

A Medical Students Forum was organized recently by a group of students at the University of Texas School of Medicine, Galveston, for the purpose of discussing facts and problems connected with the social, economic and cultural aspects of a doctor's life, advises the Galveston *News.* Membership in the group is open to students only but the programs are open to anyone interested. The first program conducted after the organization meeting consisted of an address by Dr. J. A. Scott, professor of epidemiology in the University of Texas School of Medicine, who was formerly with the Rockefeller Foundation in Egypt. Dr. Scott compared the culture of that nation with our own.

Houston Negro Medical Center Planned.—Plans are being made to establish a medical center for Negroes in Houston, with the Houston Negro Hospital and proposed St. Elizabeth's Hospital for negroes as the first units, states the Houston *Press.* Architects have been ordered to hold up work for plans on the St. Elizabeth Hospital building pending decision to relocate it adjacent to the Houston Negro Hospital. Definite decision with regard to the new location for formation of the medical center must come from the Missionary Sisters of the Immaculate Conception. The hospital is to be managed by the Catholic Charities with the Missionary Sisters. It was pointed out that the announcement of the possible change was premature and definite decision has yet to be made.

Texaco Company Hospital and Surgical Plan.—A hospital and surgical benefits plan for employees of the Texaco Company and domestic subsidiaries has been put into effect throughout the United States, according to an announcement by the works manager of Texaco Company Plant at Beaumont, states the Beaumont *Enterprise.* The plan is voluntary. It provides benefits for hospital confinement and surgical operations not otherwise covered by workmen's compensation or similar provisions. Benefits include payment at the rate of $4 per day from the time the employee is confined in a hospital, up to thirty-one days for each period of disability. A surgeon's fee allowance provides up to $150 for some major operations and similar amounts for lesser operations. Reimbursement is provided up to $20 for incidental hospital expenses, such as operating room, x-rays, tests. The plans costs the individual employee fifty cents a month, and the Company pays the balance. Benefits under the Texaco plan do not interfere with but are in addition to any other hospital and surgical benefits to which the employee may be entitled under any other insurance policy or because of membership in any association. The plan is in addition to Texaco Company's employee benefit plans covering accident and sickness, permanent total disability, and group life insurance and pensions, which have been in effect for the last several years.

State Board of Control Favors State Psychopathic Hospital Improvements.—The State Board of Control recommended in a meeting November 14, that if the State Legislature should decide to maintain the Galveston State Psychopathic Hospital, an appropriation should be made for doubling its capacity and for installation of its own powerhouse, laundry, ice plant and other needed utilities, reports the Galveston *Tribune.* The Galveston Chamber of Commerce has been active for several months in an effort to

have the Psychopathic Hospital reopened. "According to Associated Press dispatches the board said in its biennial budget recommendation to the Governor and the Legislature that additional land and proper housing facilities for the staff and employees of the hospital should be made available." The board also said, "Another use to which the institution could be devoted would be as hospital for mentally defective children, in which field of hospitalization the state has acute need for an expansion of housing facilities. This kind of institution would furnish another fine field of study for the medical students and together with mental wards of John Sealy Hospital for nervous diseases would supply a larger field of clinical study than is now afforded."

The Texas Academy of Science met November 9, 10 and 11, at the University of Texas School of Medicine, informs the Galveston *News* and *Tribune*. One of the special features of the meeting was a symposium on November 11, on the biology of the cancer cell, under the chairmanship of Dr. W. A. Selle, Associate Professor of Physiology, University of Texas School of Medicine. Participating were Professors R. E. Hungate, Alfred Taylor, T. S. Painter and R. J. Williams of the University of Texas, Austin; Fritz Schlenk, Ph. D., Houston; Professor J. A. Cameron, Dallas, and Drs. W. A. Selle and Paul Brindley, Galveston.

Another feature of the meeting was a symposium on health conditions in the coastal area of Texas, under the chairmanship of J. G. Sinclair, professor of anatomy at the University of Texas School of Medicine. Other subjects discussed included water and its relation to human longevity, chorine absorption by plants, alloxan diabetes in rabbits, geopolitical alternatives in the United States, Federal boarding schools in Mexico, preliminary studies on the diffusion of penicillin, hurricanes, geographic and postwar planning in the South, Texas postwar crop utilization, rat control programs, the tuberculosis problem in Texas, insect-borne diseases, the distribution of malaria in Texas, typhus fever, and others. The symposium on utilization of the resources of the Gulf Coast area included such items as sulfa, rice, salt water injection of wells, natural gas and rubber, treatment of chemical pollution in relation to marine life, the oyster program for the Gulf Coast area, and the handling of shrimp and fish catches.

The meetings were held in various rooms of the Laboratory Building of the University of Texas School of Medicine.

Baylor University News.—Baylor University College of Medicine graduated its second class in Houston, November 13, the forty-fifth in the history of the college of medicine of the University. Dr. Umphrey Lee, president of the Southern Methodist University, delivered the commencement address and urged graduates to participate more fully in community life upon their return from military duty. Dr. Lee also emphasized that history and tradition must be respected if civilization is to be preserved.

Degrees were conferred upon fifteen graduates by Pat M. Neff, president of the University. Seven Army commissions were presented by Captain Earl W. Hill and seven Naval commissions by Commander V. F. Rathbun.

Dr. B. F. Hambleton, professor of physiology and pharmacology in Baylor University College of Medicine was awarded the honorary degree of doctor of science in recognition of his long service in medical education and research. Dr. Hambleton has been connected with the University since 1920. Previously, he was professor of physiology at Vanderbilt University College of Medicine where he also served as acting dean and secretary of the medical school during World War I. Dr. Hambleton is known in the scientific world for having been the first to describe the movement of the intestinal villi. He has also described the effects of gallbladder and appendiceal lesions on gastric secretions and the explosive gases formed on electric destruction of tissue.

Baylor University Board of Trustees, at a meeting November 13, approved plans for a new college of medicine building to be erected on the twenty-acre site of the Medical Center in Houston. The new building will cost one million dollars. It will be four stories high, with a basement, and will contain 130,000 square feet, with a fronting of 473 feet. It will include an auditorium and will house all the preclinical and administrative departments as well as furnish offices for the members of the clinical departments. The one million dollars for the new building and the $20,000 are gifts to Baylor University by the M. D. Anderson Foundation, which has already provided one million dollars for research to be used in the next ten years. In addition, the College of Medicine received $500,000 for the same ten-year period as a gift from the citizens and business firms of the City of Houston.

Baylor University College of Medicine opened its new class November 20, with 84 members.

A unique program of public health education has been developed for senior students of Baylor University College of Medicine, who will participate in a two-weeks required field course with the city health department and the Harris County Health Department, according to Dr. Austin E. Hill, city health officer of Houston, informs the Houston *Press*. The forty senior medical students, in groups of five, will spend nine days in observation of the city health department and two days at the county department. The first part of the course will involve study of administration, health clinics and health education, followed by study of environmental sanitation and preventive medicine and dentistry, including maternal and child hygiene, public health nursing, school health work and communicable disease control. The course is designed to show what a health department does, and how civilian practitioners may make use of its facilities, as well as how to coöperate with the public health program. The course was developed by the health department officials and Dr Wilson M. Fisher, assistant professor of bacteriology and preventive medicine in the Baylor University School of Medicine.

The Texas Branch of the Society of American Bacteriologists met November 18, at Baylor University College of Medicine, Houston. Fourteen papers were presented during the morning and afternoon sessions. In the evening, after a banquet, Dr. H. W. Lundy, D. P. H., recently appointed director of health education of the city health department of Houston, and assistant professor of public health and preventive medicine at the Baylor University College of Medicine, gave an illustrated talk on "Research in the Field of Public Health."

Dr. Arthur R. Colmer of the department of botany and bacteriology, University of Texas, Austin, was elected secretary to replace Dr. Gordon Worley, Jr., who resigned that position to enter the U. S. Navy.

The next meeting of the organization will be held in Austin, May, 1945.

University of Texas News.—Dr. George Burr, professor of biological chemistry at the University of Minnesota, addressed the staff and student body of the University of Texas School of Medicine recently on the subject, "Fat Metabolism," advises the Galveston *News*. Dr. Burr's lecture was given under the auspices of the University of Texas Health Program in the department of pediatrics under the direction of Dr. Arild E. Hansen, and supported by the Wm. Buchanan Foundation of Texas. Dr. Burr

called attention to the revolutionary changes that can be brought about in character of fat of the individual without physiological effects. He further pointed out that vitamin E is one of the factors in the body which prevents fats in the tissues of living individuals from becoming rancid. Although discovered twenty years ago and labeled the anti-sterility vitamin, no medical use has been found for vitamin E in curing sterility in humans. There is evidence, according to Dr. Burr, that vitamin E may prevent muscular distrophy.

Rainey Dismissal and University of Texas Medical School Removal continues to occupy headlines and fill columns of Texas newspapers. The Dallas *Times* Herald reports that Dr. George Underwood of Dallas, president-elect of the alumni of the University of Texas Medical School, and Dr. W. D. Jones, a member of the executive committee of the alumni and others, have sent telegrams to chairman John H. Pickett, Jr., of the Board of Regents of the University, who resigned following the furor over President Rainey's dismissal, expressing confidence in their administration and urging them to withdraw their resignations. Those who did not resign were also urged to remain on the Board. Dr. Jones is quoted as saying, "Dr. Rainey brought this whole thing on himself when the Board refused to act on his request recommending removal of the medical school to Austin and began criticizing the board publicly. We wholeheartedly back the Board's judgment and have urged all members to remain."

The Galveston *News* quotes from an editorial in the Houston *Post*, with the statement that it intimated that "the regents may be waiting for a vote of confidence."

"A different outcome of the Rainey-Regents' embroilment could hardly have been expected," the *Post* declared. "When an employee publicly assails his employers with a bill of indictment it is not human nature for the employers to let him get away with it." The editorial further declares that one puzzling thing about the Regents' action is their failure to make a more comprehensive statement. It is asserted that as matters stand, the charges of Dr. Rainey remain unanswered and the disinterested public is up in the air. It further asserts, "The action of the Regents was drastic, but since it has been taken it behooves all who are sincerely interested in the welfare of the State's greatest educational institution to coöperate toward the earliest possible restoration of peace and tranquility on the forty acres.

The Austin *American* reports that a resolution was issued to newspapers from Galveston by the student body of the medical branch of the University, urging the removal of the University of Texas School of Medicine from Galveston. It is stated that the resolution was adopted by a vote of 319 for, 41 against, 9 with no opinion and 15 not contacted. Copies were sent to the Governor, the Board of Regents, the president of the University, the dean and faculty of the medical branch, the State Senators and Representatives, county medical societies and "others who might be interested." The following three conditions were set out in the resolution, with the assertion "without the fulfillment of these, we see our school doomed to mediocrity."

"1. That the University of Texas medical branch must be moved to a more advantageous location.

"2. That liberal education and academic freedom are necessary for the fullest development of the physician.

"3. That a state medical school must have adequate financial support with absolute administrative independence."

Foregoing the three conditions of the resolution was the following statement and ten points which led to its adoption:

"We, the students of the University of Texas medical branch, believing that freedom of thought, open discussion, and ultimate common agreement have been the cornerstone for the development, perpetuation, and magnificent achievements of our democracy, feel it our moral obligation to express our views, to the governor, board of regents and president of the University of Texas, the dean and faculty of the medical branch, and the people of Texas.

"Realizing that our actions will not affect the members of the present student body, except insofar as the standing of any institution reflects upon its graduates, but feeling that, in general, the future of medicine in Texas is at stake and, in specific, that the future of the medical branch is endangered, we hereby wish to point out the following conditions which doom our school to mediocrity:

"1. A gross lack of clinical material of a type encountered in general practice.

"2. Inadequate number of patients for outpatient study—a situation which no amount of building expansion can remedy.

"3. A peculiar institutional setup which though nominally state-controlled is frequently locally dominated.

"4. A lack of pride and a feeling of indifference on the part of the people of Texas toward the development and maintenance of a school of the highest rank.

"5. A school which because of its geographic location is out of touch with the medical needs and problems of the state of Texas.

"6. A quantitative lack of clinicians for adequate supervision and personal instruction of students.

"7. A storm-battered, outdated physical plant of decidedly inferior quality.

"8. Location in a decadent city with poor postwar outlook.

"9. Inadequate housing facilities which make Galveston unattractive to new faculty members and students.

"10. Deplorable local health conditions as exemplified by the fact that medical students here over a period of years have had one of the highest tuberculosis rates among medical schools in the United States.

"These foregoing conclusions are in no means to be construed as a condemnation of those outstanding members of our faculty whose extraordinary abilities and untiring efforts have, despite numerous handicaps, continued to serve Texas medicine."

It is pointed out that the conditions described in the students' resolution are similar to those set forth by Dr. Rainey in his report to the Board of Regents on July 15 on "The Future Development of the University of Texas," in which he asked for the removal of the Medical School, the College of Nursing, and the School of Dentistry to Austin, and stated, "In my judgment, if the medical branch is left in Galveston it is doomed to mediocrity."

The American Society of Anesthetists met November 2, in Houston, and at the University of Texas School of Medicine, Galveston, on November 3. This was the first meeting in the South of the organization. The program in Houston included talks by Drs. E. A. Rovenstine and McKinley L. Phelps of New York City; Hubert Hathaway, San Francisco; R. L. Sanders, Memphis; Hubert Doudna, University of Oklahoma; Ralph M. Waters, University of Wisconsin; Lt. Col. J. W. Winter, Brooke General Hospital, Fort Sam Houston, and Commdr. J. C. Youngblood, U. S. Naval Hospital, Jacksonville, Florida. During the morning, clinics were held at Herman and Memorial Hospitals and St. Joseph's Infirmary. A luncheon was held at noon at the Rice Hotel, and dinner

at the San Jacinto Inn. Dr. C. D. Leake, vice-president and Dean of the University of Texas School of Medicine, Galveston, and Dr. E. W. Bertner, Houston, director of the M. D. Anderson Hospital for Cancer Research, were speakers at the evening session. The scientific program at Galveston was conducted in the outpatient clinic of the John Sealy Hospital. Demonstrations and discussions involving different types of anesthesia were given by members of the department of anesthesia of the University of Texas School of Medicine, during the Galveston session.

Dr. R. F. Bonham, Houston, served as chairman at the Houston session, and Dr. H. C. Slocum, Galveston, was in charge of arrangements for the Galveston sessions.—*Houston Post.*

Dallas Academy of Ophthalmology and Otolaryngology met December 5, at the Dallas Athletic Club. A dinner honoring Dr. Chauncey D. Leake, Dean, University of Texas School of Medicine, and Dr. Tinsley Harrison, Dean, Southwestern Medical College, preceded the scientific program.

Dr. Leake addressed the society on the subject, "Antibiotics," and Dr. Harrison delivered an address entitled, "Your Vascular Tree."

Dr. S. F. Harrington acted as commentator and discussers were Drs. A. I. Folsom, W. Mood Knowles and Herbert Donnell.

The Southern Chapter of the American College of Chest Physicians met conjointly with the annual meeting of the Southern Medical Association at St. Louis, November 13 and 14. The following Texas physicians were registered at the Chapter meeting: Drs. C. M. Hendricks, El Paso; John Wiggins, Fort Worth; W. W. Coulter, Jr., Houston; John R. Phillips, Houston; Sam Thompson, Kerrville; R. W. Taylor, Lufkin; Lloyd I. Ross, San Antonio; B. C. Ball, Fort Worth; Harry Caplovitz, Houston; Alvis E. Greer, Houston; G. W. Wahlgren, Houston; R. G. McCorkle, San Antonio; Robert J. Hanks, Waco, and Major C. E. Gerson, Longview.

The following officers were elected by the Southern Chapter of the College: Dr. Alvis E. Greer, Houston, president; Dr. Carl C. Aven, Atlanta, Georgia, first vice-president; Dr. Paul A. Turner, Louisville, Kentucky, second vice-president; Dr. Benjamin L. Brock, Waverly Hills, Kentucky, secretary-treasurer.

The Seventh Annual Forum on Allergy will be held January 20 and 21 in the Hotel William Penn, Pittsburgh, Pennsylvania. On the evening of January 19, preceding the Forum, the American Association of Allergists for Mycological Investigation will hold its annual meeting at which time results of coöperative research on allergy to fungi will be reviewed. All reputable physicians and scientists are invited to attend this summarization of a year of coöperative research, and all reputable physicians are welcome to attend the two-day forum on allergy.

There will be twelve study groups, two of which are open to any registrant and which are divided so that those dealing with ophthalmology and otolaryngology, pediatrics, internal medicine, dermatology and allergy run consecutively. Immediately after registering, registrants are expected to write the group leader and advise what questions he would like to have brought up in the discussion. Every type of instruction method will be employed in the program, including special lectures by outstanding authorities, study groups, pictures, demonstrations, symposia and panel discussions.

For further information, copies of the book and registration, address Jonathan Forman, M. D., Director, 956 Bryden Road, Columbus 5, Ohio.

Urology Award.—The American Urological Association offers an annual award "not to exceed $500" for an essay (or essays) on the result of some specific clinical or laboratory research in Urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. All interested should write the Secretary, for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming June meeting of the American Urological Association.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 15, 1945.

Military Personals

Capt. Albert H. Braden, Jr., formerly of Houston, Texas, was recently awarded the Silver Star. According to the citation accompanying the award, "During the night of May 23-24, 1944, an undetermined number of Japanese attacked the perimeter of the unit to which he was attached in New Guinea. With complete disregard for his own personal safety he administered medical care to our wounded and checked the dead, using a flashlight, thereby endangering his own life by becoming a visible target for the enemy. His calmness and devotion to duty under hostile fire reflects great credit on himself and on the military service." Dr. Braden graduated from the University of Texas Medical Branch, Galveston, in 1940 and entered the service August 15, 1941.—*J. A. M. A.* (Nov. 18), 1944, p. 774.

Lt. Col. James E. Thompson, son of the late Dr. J. E. Thompson of Galveston, is now serving as a member of the Ninth Evacuation Hospital, manned by the Roosevelt Hospital Unit, which has been overseas twenty-five months, informs the Galveston *News.*

Major Michael K. O'Heeron, Houston, was a member of a volunteer party which effected the first rescue from the treacherous Gedu death trap region of northern Burma, states the Houston *Press.* The volunteer party was formed to rescue Lt. Greenlaw M. Collins, New Orleans, a fighter pilot. Major O'Heeron found the lost flier who had suffered a forty-five day ordeal in the malarial-infested jungles bordering the famous "Hump" to China, dressed the boils and leech infections resulting from the exposure, and accompanied him to the emergency hospital. Major O'Heeron, a neurologist, had practiced in Houston for two years before entering the Army in 1941.

Commander C. P. Hawkins of Fort Worth, prior to his entry in military service in July, 1941, is now commanding officer of a Naval clinic and hospital for dependents of military personnel in Oceanside, California, informs the Fort Worth *Star-Telegram.* Prior to this service, Commander Hawkins served for two years as medical officer on a supply ship in the South Pacific.

Commander Victor J. Weiss, who has been on active duty with the Navy for two years and eight months, was recently placed on inactive status, advises the San Antonio *Light.* Dr. Weiss will reenter medical practice in San Antonio where he was in active practice from 1930 to 1942 prior to his entry in the armed services.

Dr. John Paul Gibson, Abilene, was recently commissioned a captain in the medical corps of the United State Army, and has been ordered to report to active duty at a Veterans Hospital, Prescott, Arizona, states the Abilene *Reporter-News.*

Dr. Roscoe O. Moore, former Austin physician, has been promoted to the rank of captain in the medical corps of the Army of the United States. Captain Moore has just returned from overseas where he served as surgeon on an Army hospital ship, which brought back casualties from France.

Dr. Henry H. Austraw, Houston, has been serving in the Army of the United States as a Captain in the medical corps since July, 1944, and is now stationed at the ASF Regional Hospital, Fort Benning, Georgia.

Dr. Peter M. Marcuse, former resident at Jefferson Davis Hospital, Houston, has received a commission in the U. S. Army and will be on active duty at Carlisle Barracks, Pennsylvania, November 15, 1944.

Dr. Robert O. Brown, former intern at Harris Memorial Methodist Hospital, Fort Worth, has entered active duty in the medical corps of the Army and has been assigned to Mayo General Hospital, Galesburg, Illinois.

Drs. Richard A. Bagby and *Courtney C. Brooks*, former interns at Scott and White Hospital, Temple, have entered active duty with the United States Navy and the United States Army, respectively.

Dr. George Wm. Straight, former resident, Scott and White Hospital, has entered active duty with the U. S. Army Medical Corps.

Drs. George F. Eden and *Donald P. Schulz*, former interns at Hermann Hospital, Houston, are on active duty in the medical corps of the Army.

Dr. Leonard B. Johnson, former resident at Hermann Hospital, Houston, is now serving with the medical corps of the Army.

Dr. Charles W. Castle, former intern, Hermann Hospital, Houston, is now serving with the medical corps of the Navy.

Dr. Gordon Worley, Austin, received a commission in the U. S. Navy, September 5, 1944, and is at present stationed at the U. S. Naval Hospital, Shoemaker, California.

Dr. Oliver W. Lowrey, former resident at St. Joseph's Hospital, Fort Worth, has received orders to active duty in the medical corps of the U. S. Army.

Dr. E. K. Chunn, Houston, received a commission of first lieutenant, M. C., AUS, for service with the Veterans Administration, November 25, 1944.

Personals

Dr. C. O. Terrell, Fort Worth, was recently appointed a member of the Board of Regents of the University of Texas by Governor Coke Stevenson to fill the vacancy created by the death of Dr. K. H. Aynesworth of Waco, reports the Fort Worth *Press*. Dr. Terrell is a former vice-president of the State Medical Association of Texas, a Fellow of the American Medical Association, the American College of Physicians, and the American Academy of Pediatrics.

Dr. J. Frank Clark, formerly of Abilene, has been appointed assistant director of the venereal disease clinic of the Central Texas Health Department serving the counties of Bell, Williamson, Lampasas and Coryell, states the Belton *Journal*. Dr. Clark had recently moved to Georgetown from Abilene where he had been in practice for thirty years.

Dr. Craig Munter, Fort Worth, was recently named Airline medical examiner for the Civil Aeronautics Administration, according to the Fort Worth *Press*. Dr. Munter will be available to anyone in the Fort Worth area who wishes to be examined for a pilot's license or for any of the technical positions in the Civil Aeronautics service which requires a physical examination.

Dr. and Mrs. Ben T. Welch of Cristoval celebrated their fiftieth wedding anniversary recently, informs the San Antonio *Times*.

Dr. Sol B. Estes, Abilene, was recently named chairman of the medical staff of St. Ann Hospital, succeeding Dr. J. P. Gibson, who has entered the armed services, reports the Abilene *Reporter-News*.

Dr. Fred W. Standefer, Lubbock, suffered a coronary occlusion when en route by plane to Meridian, Texas, to attend the funeral service of a brother who had died of coronary occlusion, states the Lubbock *Avalanche-Journal*. The JOURNAL is pleased to advise that Dr. Standefer is recovering satisfactorily.

Dr. J. M. F. Gill, who retired November 1 from the Wichita Falls State Hospital staff, suffered a cerebral hemorrhage November 12. He is at present a patient in the U. S. Veterans Hospital, Waco, Texas. Prior to his retirement, Dr. Gill had been active in medicine for fifty-five years.

Dr. Cornelius O. Bailey, now a resident of Los Angeles, California, formerly of Dallas, Texas, was recently notified of his re-election as Surgeon General of the Military Order of the World Wars at the national convention of that organization held in September in Atlanta, Georgia. Dr. Bailey served as a major in the medical corps of the Army in World War I.

Marriages

Dr. R. E. Burres of Winnsboro, was married to Mrs. Lena King of Crews in November. Dr. Burres practiced medicine at Crews from 1921 to 1928.

Dr. Maurice Sanderson of Waco, was married November 18 to Miss Dorothy Young, Waco. The couple will reside in Waco where Dr. Sanderson is a resident surgeon at Providence Hospital.

Dr. Tom Roberts and Miss Laura Mae Hunter, both of Dallas, were married November 4. Their home will be in Galveston, where Dr. Roberts will be connected with the John Sealy Hospital.

SOCIETY NEWS

Angelina County Society

October 9, 1944

(Reported by B. H. Denman, Secretary)

Antepartum Hemorrhage—P. C. Clements, Lufkin.
Clinical Case Reports—T. A. Taylor, Lufkin.

Angelina County Medical Society met October 9, at the Lufkin Country Club, with twelve members present. Following a dinner, the scientific program as given above was carried out.

The paper of P. C. Clements was discussed by A. E. Sweatland, B. H. Denman and T. A. Taylor.

T. A. Taylor presented interesting clinical case reports which received free discussion by all members present.

P. C. Clements spoke in the interest of the War Chest Drive.

Bell County Society

October 4, 1944

(Reported by J. H. Greenwood, Secretary)

Spinal Anesthesia: A Review of 1,200 Cases—L. W. Pollok, Temple.

Bell County Medical Society met October 4, at the Kyle Hotel, Temple, with fourteen members and two visitors present. The scientific program as given above was carried out.

Charles Phillips, chairman of the public health committee, reported that Dr. J. W. Sharp of Georgetown had been secured as full-time clinician to serve with the venereal disease clinic for the four county area, as had been recommended by the Society, which recommendation had been approved by the State Health Department. He reported that Dr. Sharp is already on duty at the clinic.

Dr. Phillips also reminded the Society that some months ago consideration had been given to a tuberculosis diagnostic program and bringing of the mobile x-ray unit of the State Health Department to Bell County for that purpose. He advised that the Health Department wished to have a specific invitation from the Society to have the diagnostic program carried out. He moved that such invitation be addressed to Dr. George W. Cox, State Health Officer. The motion was seconded by A. E. Moon and carried.

A. E. Ballard stated that roentgenograms are made only in those cases that have been found positive

after the tuberculin test. Also, the roentgenograms are made only on the prescription of physicians in the community.

Dr. Ballard introduced Dr. J. W. Sharp.

Childress-Collingsworth-Hall Counties Society

October 19, 1944

Common Problems of Infants—G. M. Waddill, Amarillo.
Diabetes—W. R. Klingensmith, Amarillo.
Nervousness and Constipation—J. H. Vaughan, Amarillo.

Childress-Collingsworth-Hall Counties Medical Society held a banquet and scientific session at the Pounds Cafe, Memphis, October 19. Members of the Auxiliary attended the banquet and then held a separate session at the home of Dr. and Mrs. Odom of Memphis, following the banquet.

The scientific program as given above was presented by three guest speakers from Amarillo.

Dallas County Society

October 12, 1944

(Reported by W. W. Fowler, Secretary)

Hodgkin's Disease—A. J. Gill, Dallas.
Rheumatic Fever—Gladys Fashena, Dallas.
Periarteritis Nodosa—Alfred W. Harris, Dallas.

Dallas County Medical Society met October 12, in the Medical Arts Auditorium, Dallas, with fifty-five members present. John M. Pace, vice-president, presided in the absence of the president. The scientific program as given above was carried out. The paper of A. J. Gill was discussed by Alex W. Terrell, Jr., J. M. Hill, and Warren Andrews.

Gladys Fashena illustrated her address on rheumatic fever with lantern slides showing distribution of cases in various groups and, also, illustrating the antifibrinolysin test. The paper of Dr. Fashena was discussed by John G. Young, J. E. Robertson and Paul J. Thomas.

The paper of Alfred W. Harris on periarteritis nodosa was illustrated by lantern slides and was discussed by George T. Caldwell, who also exhibited lantern slides of the pathologic changes present in this condition. Dr. Harris' paper was discussed by George M. Jones, and Gladys Fashena.

A letter from the Council of Social Agencies was read, requesting an expression of opinion from the Society with regard to the establishment of an agency, the primary function of which would be education in the field of social hygiene. The letter was referred to the public health committee for consideration and reply.

Homer Donald, reporting for the committee on dues, stated that the committee recommended that dues for the duration be $30.000 of which $20 is to be paid to the State Medical Association and $10 to be retained by the Dallas County Medical Society. On motion by Dr. Donald, the recommendation was adopted.

October 26, 1944

Symposium on Newer Methods of Fracture Treatment:
a. Fractures of the Shoulder Girdle and Upper Extremity—Brandon Carrell, Dallas.
b. Pelvis and the Lower Extremity—Margaret Watkins, Dallas.

Dallas County Medical Society met October 26, in the Medical Arts Auditorium, Dallas, with fifty-five members present. David W. Carter, Jr., president, presided, and the scientific program as given above was carried out.

Brandon Carrell illustrated his talk on newer methods of treatment of fractures of the shoulder girdle and upper extremity with lantern slides showing (1) fracture of shaft of humerus just below the shoulder joint; (2) fracture disclocation of the shoulder; (3) cast for treating fractures of the shaft of humerus; (4) a chart of different fractures of the forearm; (5) fracture of the wrists; (6) methods of treating injuries to the fingers.

Margaret Watkins illustrated her address on methods of treating fractures of the pelvis and lower extremity with lantern slides showing (1) method of fixation and treatment after reduction; (2) fractures of the shaft of the femur; and (3) photographs of splints used in the treatment of fractures of the femur.

The symposium was discussed by Warren Andrews.

Secretary Fowler called the attention of the Society to the action taken by the House of Delegates of the State Medical Association at the last annual session, in which an amendment to the By-Laws was adopted requiring that $1 annual dues be paid for medical defense of military members. Dr. Fowler asked instructions as to whether an effort should be made to collect the $1 annual dues from each military member or whether the Society would pay the dues of the military members. It was voted that the secretary be instructed to pay the $1 annual dues required for each military member of the Society.

Dawson-Lynn-Terry-Gaines-Yoakum Counties Society

September 13, 1944

(Reported by Andrew S. Tomb, Secretary)

The Duties and Responsibilities of a Flight Surgeon—Capt. Barber, Hobbs Army Air Base.
Anesthesia—Capt. Fulton, Hobbs Army Air Base.
Caudal Analgesia (Motion Picture)—Presented through the courtesy of Eli Lilly and Company.

Dawson - Lynn - Terry - Gaines - Yoakum Counties Medical Society met November 2, at Seminole, with medical officers from the Hobbs Army Air Base as guests. The scientific program was presented by two members of the medical staff of Hobbs Army Air Base under the direction of Major Marchland. Following the interesting papers by the Army Air Force medical officers, a motion picture in color on caudal analgesia was exhibited through the courtesy of Eli Lilly and Company.

A welcome member present was Captain Daniel, a military member recently returned from overseas, who was able to attend the meeting between assignments.

W. T. Jones, formerly of San Augustine, now associated with the Gaines County General Hospital in Seminole was elected to membership on transfer from the Shelby-San Augustine-Sabine Counties Medical Society.

Preceding the business and scientific sessions, an outdoor barbecue was served to members and guests of the Society, and their wives, compliments of the staff of the Gaines County General Hospital.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Society

November 16, 1944

Treatment of Pilondial Sinus—Major Paul M. Mutschmann, A. A. F. Regional Hospital, Pyote.
Medical Problems Involving Flying Personnel—Capt. John R. Mast, Midland Army Air Field.
Psychological Research Project at Midland Army Air Field—Major Edward H. Kemp, Midland Army Air Field.
Treatment of Fractures of the Os Calcis (motion picture)—Shown through courtesy of Dr. Otto W. Yoerg, Minneapolis, Minnesota.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society members were guests of Lt. Col. E. G. Benjamin and staff of the Midland Army Air Field, at a dinner at the station hospital, November 16. Col. Charles H. Dowman, commanding officer, Midland Army Air Field, delivered an address of welcome.

Following the dinner the scientific program as given above was carried out, with approximately fifty physicians present from the counties covered by the Society, and medical officers from the AAF Regional Hospital, Pyote, and station hospitals at Big Spring and Midland. After a showing of the motion picture on treatment of fractures of the os

calcis, which was outlined by Dr. Otto E. Yoerg of Minneapolis, a discussion on the subject was led by Capt. R. J. Bannow, orthopedic surgeon at the Pyote AAF hospital.

Gray-Wheeler Counties Society

October 19, 1944

(Reported by H. L. Wilder, Secretary)

Clinical Case Reports—W. Purviance, Pampa; H. E. Nicholson, Wheeler; W. C. Barksdale, Borger, and H. L. Wilder, Pampa.
Impressions Gleaned from the National X-Ray and Radium Societies—H. L. Wilder, Pampa.
X-Ray in the Treatment of Benign Conditions in Gynecology—F. H. Cariker, Childress.

Gray-Wheeler Counties Medical Society met October 19, at the Schneider Hotel, Pampa, with eleven physicians present. As has been the custom for a number of years, a Dutch lunch was served before the scientific session. The program as given above was carried out. The clinical cases reported were of special interest.

The paper of H. L. Wilder was discussed by F. H. Cariker, W. Purviance, P. C. Christian and C. H. Ashby.

The paper of Dr. Cariker was discussed by H. L. Wilder, W. C. Barksdale, H. E. Nicholson, L. E. Petty, C. E. High, C. H. Ashby, P. C. Christian, W. Purviance.

Jefferson County Society

October 9, 1944

(Reported by L. R. Byrd, Jr., Secretary)

The Problem of Diagnosing and Treating Surgical Pulmonary Lesions—D. A. Mann, Beaumont.
Cases Presenting Chest Surgical Problems—D. C. Hager, Beaumont.

Jefferson County Medical Society met October 9, at the St. Therese Hospital, Beaumont, with I. T. Young, president, presiding. The scientific program as given above was carried out.

The series of cases presenting chest surgical problems, which were reported by D. C. Hager, was discussed by M. A. Cunningham, Taylor C. Walker, and W. D. Lightfoot.

C. M. White reported the death of Dr. George L. Butler while serving in military service. President Young appointed a committee to compose suitable resolutions of sympathy on the death of Dr. Butler.

Secretary Byrd gave a report of the present status of the Port Arthur Veterans Rehabilitation program. President Young appointed a committee composed of A. R. Autrey, chairman, J. M. White and B. W. Wood to cooperate with the Veterans Rehabilitation program, which committee was directed to function for the Society in any way that they might be called upon.

November 13, 1944

Diagnosis and Modern Treatment of Meningitis in Children—George Bialkin, Port Arthur.

Jefferson County Medical Society met November 13, at St. Mary's Hospital, Port Arthur, with I. T. Young, president, presiding. The scientific program as given above was carried out.

The paper of George Bialkin was discussed by H. B. Eisenstadt, L. C. Powell, Taylor C. Walker, L. R. Byrd, Jr., J. M. Raines and Max J. Knight.

During a business session, a proposal and request for approval by the Society of reopening of the Crippled Children's Clinic in Port Arthur was considered, and the Society voted approval, on motion of Taylor Walker.

President Young appointed B. J. Fett, chairman, and J. M. Raines and James Makins as a committee to make arrangements for the annual banquet to be held December 11.

E. D. Mills moved the expense for the annual banquet be prorated among the regular members of the Society present at the banquet. The motion carried.

L. C. Powell, reporting for the legislative committee, discussed preprints recently received from the legislative committee of the State Medical Association and advised that local representatives in the Legislature would be contacted and acquainted with the information contained therein.

A letter was read inviting members of the Society to attend a nutrition clinic in Houston, December 23, to be conducted by Dr. Walter Wilkins, U. S. Public Health Service.

LaSalle-Frio-Dimmit Counties Society

November 14, 1944

(Reported by B. E. Pickett, Secretary)

Round-Table Discussion of Medical Problems—Conducted by Cary Poindexter, Crystal City.

LaSalle-Frio-Dimmit Counties Medical Society met November 14, at Crystal Spring. An interesting round-table discussion was led by Cary Poindexter of Crystal City on various medical problems of special interest.

During a business session the Society endorsed the legislative program of the State Medical Association as submitted by the State Association Legislative Committee.

The Society reaffirmed its opposition to S. 1161, the Wagner-Murray bill, pending in Congress.

The Society voted to accept without comment the increase of State Association dues to $20.

The following officers were elected for the ensuing year: E. M. Howard, Pearsall, president (re-elected); John A. Cooke, Cotulla, secretary-treasurer; B. E. Pickett, Carrizo Springs, delegate; C. D. Lindley, J. E. Beall, and John Lightsey, censors.

Stephens-Shackelford-Throckmorton Counties Society

October 12, 1944

Stephens-Shackelford-Throckmorton Counties Medical Society met October 12 at the Burch Hotel, Breckenridge. Following a steak dinner, a scientific program was presented by Major Charles Lowery and Maj. Douglas Garrow, Camp Barkeley, and James P. Bridges, Abilene, formerly of Camp Barkeley.

A discussion was then had regarding the efforts being made to socialize medicine in this country.

November 13, 1944

(Reported by D. J. R. Youngblood, Secretary)

Stephens-Shackelford-Throckmorton Counties Medical Society, at its meeting November 13, voted to recommend to the Governor of Texas and Board of Regents of the University of Texas, serious consideration of the matter of removal of the Medical Department of the University of Texas from Galveston to one of the larger cities in Texas where better clinical material would be available and where development and expansion of the medical school could be assured.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Bowie-Miller Counties Auxiliary met October 27, at Texarkana, with Mrs. S. E. Thompson, Kerrville,

president of the Woman's Auxiliary to the State Medical Association of Texas, and Mrs. A. C. Shipp, Little Rock, president of the Woman's Auxiliary to the Arkansas Medical Society, as honor guests. Mrs. J. T. Robison, president of the Bowie-Miller Counties Auxiliary, presided and introduced Mrs. Shipp. Mrs. Thompson was introduced by Mrs. H. E. Murry.

Mrs. Thompson and Mrs. Shipp discussed Auxiliary programs in their respective states. Both emphasized the need for members familiarizing themselves thoroughly with legislation threatening to regiment medicine in the United States, calling specific attention to the Wagner-Murray-Dingell bill pending in Congress. Both presidents also called attention to additional work being done in the two states under the sponsorship of the Auxiliaries, such as student loan funds and library funds for the development of medical libraries serving the medical profession and the public. Philanthropic activities of the two state auxiliary organizations were also discussed. The fine work being accomplished in connection with the war effort was related.

Hostesses for the annual luncheon honoring the two state president were Mesdames N. D. Daniel, S. A. Collom, Sr., R. R. Kirkpatrick, P. H. Phillips, W. Decker Smith, C. H. Frank and L. J. Kosminsky.

Dallas County Auxiliary held its first regular meeting of the fall season November 1, at the Melrose Hotel, with Mrs. S. E. Thompson, Kerrville, State President, and Mrs. S. M. Hill, president of the North Texas District Auxiliary and Council Woman of the Fourteenth District, as honor guests. Presidents of county auxiliaries in the Fourteenth District were also specially invited guests to the meeting. The advisory and legislative committees of the Dallas County Auxiliary were hostesses.

Mrs. Ramsay H. Moore, vice president of the State Auxiliary, presented Mrs. Thompson, who was the principal speaker and described interestingly and informatively the work of the State Auxiliary.

Mrs. Robert L. Moore, chairman for the day's program, introduced Edward W. Brady, who spoke on Medical Men of Dallas in service.

Mrs. O. M. Marchman and Mrs. S. F. Harrington presided during the social hour.

Galveston County Auxiliary honored new members with a luncheon October 20, at the Galvez Hotel, Galveston, with seventy-four members present.

Honorees were Mesdames H. H. Sweets, L. B. Baker, Owen Beard, George Emerson, J. Allen Scott, J. B. Winston, William Saunders, Paul Rocwell, William Hafer, Edward Rowe, Royal Stewart, Charles Bryan, George McCoy, Saul Friedfield, and Arild Hansen.

The committee in charge of arrangements for the meeting was composed of Mrs. Jesse B. Johnson, Mrs. Reid Robinson, Mrs. Eric Ogden and Mrs. Chester North Frazier.

Grayson County Auxiliary met November 3, at Sherman. Mrs. Max Woodward, president, presided during the business session and introduced two new associate members, Mrs. F. D. Layman and Mrs. W. B. Stafford.

The Auxiliary will continue civilian blood collections in Sherman and Denison, the first to be held in Denison November 21. It was decided that registration of donors would start November 13 at the chambers of commerce in both Sherman and Denison. The collection will be made by a mobile unit from the William Buchanan Blood Plasma and Serum Foundation in Dallas.

The luncheon meeting was attended by thirty members from towns throughout Grayson County.

The committee for the meeting included Mrs. J. H. Carraway, chairman, Mrs. C. E. Schenck and Mrs. I. C. Bates.

Harris County Auxiliary met October 30, at the Warwick Hotel, Houston.

Mr. Franklin I. Harbach, head of the Houston Settlements, gave an interesting and instructive talk on the work done by the Settlements.

Following the program and the business session, a coffee was held. Hostesses for the day were Mrs. E. W. Griffey, chairman, Mrs. E. L. Goar, Mrs. L. C. Blair, Mrs. Allan Collette, Mrs. J. G. Heard, Mrs. Fred Hughes, Mrs. Denton Kerr, Mrs. Allen McMurrey, Mrs. Henry Peterson, Mrs. Homer Prince, Mrs. William A. Toland and Mrs. B. Weems Turner. —Mrs. J. J. Greenwood.

Henderson County Auxiliary met November 14, at the home of Mrs. R. E. Henderson of Athens, with Mrs. B. C. Wallace serving as co-hostess with Mrs. Henderson.

Roll call responses were interesting items on what is new in medicine.

Mrs. A. H. Easterling reviewed stories from the book "Doctors on Horseback."—Mrs. C. M. Weekley, Secretary.

Liberty-Chambers Counties Auxiliary held its first meeting of the fall, October 12, in the home of Mrs. A. L. Delaney, Liberty.

Letters were ready regarding the essay contest, health education, and promotion of *Hygeia.* Plans were made for the Auxiliary to take an active part in all of these functions.

At the conclusion of the business session, refreshments were served by Mrs. R. C. Bellamy, hostess.

Liberty-Chambers Counties Auxiliary met November 9, in the home of Mrs. A. L. Delaney, Liberty. Yearbooks were issued. Plans were made for the State President's luncheon to be given in November. At the conclusion of the business session, refreshments were served by Mrs. Delaney, hostess.—Mrs. R. C. Bellamy, Secretary.

Tarrant County Auxiliary began its fall meeting October 13, with a luncheon at the Colonial Club, Fort Worth, with sixty members present. Mrs. E. E. Anthony, first vice-president, presided in the absence of Mrs. Sidney Price, president.

The program for the year will feature legislative work and health education, according to the yearbooks, which were distributed at this meeting.

Mrs. A. B. Pumphrey, Fort Worth, former state president, made a plea for members to inform themselves on political problems of the day and to express themselves by voting as citizens. She further urged that Auxiliary members take a particular interest in public welfare, especially with regard to problems in which the medical profession is concerned.

Tarrant County Auxiliary met November 10, at the Colonial Club, with Mrs. Sidney Price, president, presiding. Following luncheon, Mrs. M. H. Crabb, chairman of the legislative committee, who was in charge of the program, introduced Dr. R. B. Anderson, Assistant Secretary and Chairman of the Public Relations Committee of the State Medical Association, who was the speaker of the day.

Dr. Anderson discussed the legislative program of the State Medical Association for 1945. He pointed out that the Association proposes to combat vigorously any legislative effort to socialize medicine, either in the U. S. Congress or the Legislature of Texas. He referred to the fact that the Wagner-Murray-Dingell bill is still pending in Congress, in the Finance Committee of the Senate and Ways and Means Committee of the House. While this bill will die with the end of the present Congress, it will no doubt be promptly reintroduced in the new Congress convening in January. It is also likely that the medical features of this bill will be revised and provisions based on the recent report

adopted by the Governing Council of the American Public Health Association, which calls for a national program of medical care to be financed by compulsory social insurance, supplemented by taxation, or by general taxation alone, will be incorporated. This report provided that physicians would be paid either on a fee for service basis, capitation, salary, or a combination of these methods, deprecating the fee-for-service as being the most unsatisfactory. The plan envisioned in the report is definitely a regimentation of the medical profession and the general public to a system of bureacratic medicine. The legislative committee of the State Medical Association has gone on record as being unalterably opposed to any legislation embracing the features of this report.

The State Medical Association has a constructive State legislative program unanimously agreed upon by the Executive Council, which it will sponsor in coöperation with the State Board of Health. This program provides, first, for a revision of the present obsolete sanitary code, bringing it up to date in order that modern methods of combating communicable diseases may be utilized.

Second, the program calls for the passage of a standard health unit bill, which will provide legal sanction for the establishment of city, county and district health units throughout the state where they are desired by the public concerned. This is permissive and not mandatory legislation, but the fact that 64 per cent of the population of Texas is now covered by such units, operating purely on agreement basis, indicates that they are providing the right sort of public health administration.

Third, the program calls for the endorsement of a bill providing that both parties to a marriage contract shall not only be examined by a physician to determine the absence of syphilis in transmissible form, but that a standard serologic test shall be carried out on each in a laboratory approved by the State Board of Health. A measure having the same objective, namely, the stamping out of syphilis, will be sponsored, providing that every pregnant woman shall have immediately that pregnancy is diagnosed, a serologic test conducted in a laboratory approved by the State Board of Health. These two measures, if enacted and properly complied with will go far toward stamping out the ravages of syphilis, which an enlightened public demands.

The Legislative Committee of the State Medical Association has also approved the budget of the State Department of Health, which will be submitted to the Legislature. At present, the State Health Department is operated on an annual appropriation by the Legislature of $507,758 and annual grants-in-aid from the Federal government of $1,500,000. Thus, Texas is appropriating only 7.8 per capita, while other states of far lesser material wealth are exhibiting far greater concern in proper protection of the health of their citizens. For example, Kentucky appropriates 21 cents per capita, Tennessee 23 cents, Mississippi 30 cents and Louisiana 31 cents. As far as is known, Texas, the largest state of the Union is appropriating less per capita for public health than any state in the nation. The budget approved calls for an appropriation by the State Legislature of $1,500,000 per annum. As long as Texas depends upon the Federal government for funds with which to operate its State Health Department, public health in Texas will be directed by the Federal government. It is time that Texas assumes its own responsibilities in connection with the health of its citizens and stops federal bureaucratic public health administration.

Lastly, it is certain that cultist legislation will be introduced in the forthcoming session. While the chiropractors were successful in securing legal recognition in the last session of the Legislature, fortunately for the public health of Texas, the court of last resort has declared the chiropractic law unconstitutional and void. As distasteful as it is to the medical profession to have to combat cultist legislation, it is its obligation as the guardian of the public health to do so, and the Executive Council of the State Medical Association and its Legislative Committee is so pledged. The Woman's Auxiliary will be called upon to assist in supporting the legislative program of the State Medical Association, and the Association is confident that the response will be as fine and effective as it has always been.

Washington County Auxiliary met October 30, at the Hotel St. Anthony, Brenham, for the first meeting of the fall. Following a turkey luncheon, Mrs. Robert A. Hasskarl, president, extended greetings, spoke briefly regarding the activities of the Auxiliary, and read an appropriate poem.

Mrs. W. F. Tottenham offered the invocation.

Mrs. C. E. Southern, Mrs. S. E. Stafford and Mrs. M. D. Burnett, in charge of the program, presented Mrs. W. R. Stuckert and Mrs. J. C. Lauderdale, who gave several musical numbers.

Mrs. S. H. Toubin read an interesting informative paper outlining the history of the Auxiliary and its activities and accomplishments since its organization. She concluded by reading a poem, "The Doctor."

BOOK NOTES

[1]**Clinical Roentgenology of the Cardiovascular System.** By Hugo Roesler, M. D., F. A. C. P. Associate Professor of Roentgenology and Cardiologist Department of Medicine, Temple University School of Medicine; Cardiologist, Temple University Hospital, Philadelphia, Pennsylvania. Cloth, 480 pages. Price $7.50. Springfield, Illinois, and Baltimore, Maryland, Charles C. Thomas, 1943.

The roentgenologist will find this book a valuable addition to his reference library. Especially is this true in the preparation of scientific papers when it is necessary to consult a bibliography. The extent of investigation made by the author makes this book particularly useful in the roentgenologist's library or in a hospital department.

Every roentgenologist develops his own technique, but he can always obtain useful suggestions from a publication by a master in the study and practice of cardiology. All the most recent approved methods of visualizing the thorax are adequately covered in this book.

In a short review, it is impossible to do more than heartily approve and recommend Clinical Roentgenology of the Cardiovascular System, not only to roentgenologists but to all clinicians who are interested in the study of the thorax.

[2]**The Treatment of Peptic Ulcer** (Based Upon Ten Years' Experience at the New York Hospital). By George J. Heuer, M. D., Professor of Surgery of Cornell University Medical College and Surgeon-in-Chief of the New York Hospital, assisted by Cranston Holman, M. D., Assistant Professor of Clinical Surgery, Cornell University Medical College and William A Cooper, M. D., Assistant Professor of Clinical Surgery, Cornell University Medical College. Fabrikoid, 118 pages. Price $3.00. Philadelphia, J. B. Lippincott Company, 1944.

This is a carefully documented report on ten years' experience in the treatment of peptic ulcer, dealing

[1]Reviewed by Dalton Richardson, M. D., F. A. C. R., Austin, Texas.
[2]Reviewed by W. B. Russ, M. D., F. A. C. S., San Antonio, Texas.

with 1,204 patients with gastric duodenal and marginal ulcer, who were admitted to the wards of the New York Hospital. The majority of cases were treated medically, and great emphasis is placed upon the results of conservative treatment. Eleven hundred and thirty-nine or 98.2 per cent of the cases, have been followed up, which is an unusually high percentage.

The follow-up in 732 patients with peptic ulcer treated medically showed 55 per cent of satisfactory results. Only 81 of the 732 patients were submitted to operation. Of 651 continued under medical regimen, 125 have been followed from five to ten years, with 83 per cent showing satisfactory results; 189 patients followed from two to five years were 68.7 per cent satisfactory; 215 followed from three months to two years were 64 per cent satisfactory, and 127 followed for three months were 26 per cent satisfactory. The author concludes that medical treatment over a period of years will not show more than 50 per cent satisfactory results.

The study of operative therapy in peptic ulcer indicates the clinic's trend to be strongly in favor of gastric resection of both duodenal and gastric ulcer. The incidence of recurrent ulceration is somewhat lower after gastric resection than after gastroenterostomy, but the mortality is slightly higher in the resection cases.

After gastro-enterostomy the acid is neutralized by regurgitation through the stoma, while after resection it is assumed that the acid is reduced rather than neutralized. It is pointed out, however, that marginal ulceration and other difficulties are not always related to the amount of acid. Many low acid cases develop marginal ulcerations, and even perforations, while some normal or high acid cases apparently get along very well.

Added nervous strain and exhaustion are emphasized as etiological factors that overshadow bad eating habits, excessive smoking, drinking, and other commonly accepted causative factors.

The medical profession has been rather slow to accept the neurogenic factor in peptic ulcer. It was emphasized in several papers published in the TEXAS STATE JOURNAL OF MEDICINE, beginning in 1921 and 1922, but was later denounced as a crackpot idea. Now Dr. Heuer and most other competent observers emphasize the importance of dealing with the individual who has the ulcer rather than with the ulcer that has the individual, and makes it plain that wisely directed, conservative medical treatment will be given more and more attention in the future. A Sippy diet and bed rest are of no real value to the patient if his doctor is more of a technician than an artist.

DEATHS

Dr. **Hugh** Monroe Longino of Mineral Wells, Texas, died October 24, 1944, in a local hospital, at the age 100 years, seven and one-half months.

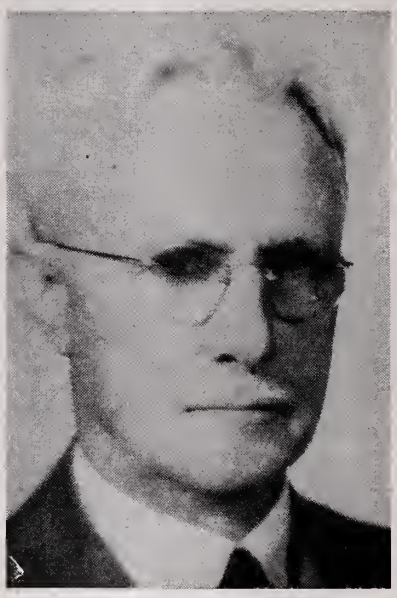
Dr. Longino was born in Palmetto, Georgia, March 11, 1844. When he was 17 years of age he enlisted as a member of Company I, Second Georgia Cavalry, Forrest's First Brigade, with which Company he served in the Civil War. He was a personal escort and courier for General Joe Wheeler, participating in all the principal battles of Tennessee and Kentucky. He was on a furlough at Charlotte, North Carolina, when General Lee surrendered. After the war, he and his parents moved to Clairborne Parish, Louisiana. There he taught a country school and studied medicine by the preceptor method. He completed his medical education in the University of Louisiana, from which he was graduated with highest honors in 1869. He first practiced in Texas and later at Haynesville, Louisiana, where he was in practice for sixty years. He then removed to Mineral Wells, Texas, where he continued in practice. In 1909, he retired from practice. He later moved to Jacksboro, where he lived for a few years, finally returning to Mineral Wells. The last several years he had managed his ranch property and other business interests.

Dr. Longino was a member, after his removal to Texas, of the Jack County Medical Society and State Medical Association during his practice in Jacksboro. Despite his advanced age, he maintained a keen interest in the affairs of his community and state. He was a member of the Methodist Church.

Dr. Longino was married to Miss Anna McLeod in Haynesville, Louisiana, in 1873. His wife died in 1935. He is survived by four daughters, Miss Cecile Longino, Mineral Wells, Mrs. D. D. Goode, Magnolia, Arkansas, Mrs. George H. Willcockson, New York, and Mrs. J. S. Criswell, Graham, Texas.

Dr. Benjamin Kinsell of Dallas, Texas, died in a Dallas hospital October 16, 1944, of uremia and pneumonia.

Dr. Kinsell was born December 14, 1864, in Elmhurst, California, the son of George and Mary Ann (Searing) Kinsell. His academic education was received in the public schools of Elmhurst, California. His medical education was obtained in the Rush Medical College, Chicago, from which he was graduated June 21, 1901. He had taken postgraduate work in clinics in Chicago, New York and London, England. He served as assistant surgeon in the U. S. Marine Hospital service in 1901 and 1902, following which he practiced medicine for one year in Eagle Pass, Texas. He then located in Dallas, where he had been in active practice for thirty-nine years until his retirement two years ago.



DR. BENJAMIN KINSELL

Dr. Kinsell was a member continuously in good standing of the Dallas County Medical Society, State Medical Association and American Medical Association during his residence in Dallas. He was also a member of the Alpha Mu Pi Omega medical fraternity. He was a conscientious, capable physician and held in highest esteem by his medical confreres. He was a director of the Olive and Myers Manufacturing Company, Dallas.

Dr. Kinsell was married April 23, 1907, to Miss Jessie Newton of Oakland, California. Mrs. Kinsell died July 27, 1941. He is survived by a daughter, Mrs. Elliott Bredow, Dallas; one sister, Miss Helen Kinsell, Oakland, California; and one brother, Judge Dudley Kinsell, Carmel, California.

Dr. Stephen Douglas Moore of Van Alstyne, Texas, died October 15, 1944, in a Dallas hospital, of heart disease, following a brief illness.

Dr. Moore was born October 24, 1859, at Black Ferry, Kentucky, the son of Dr. and Mrs. Samuel William Moore. His academic education was received in Savoy College. His medical education was obtained in the University of Louisville, Kentucky, from which he was graduated in 1884. He had lived and practiced medicine for sixty years in Van Alstyne. At the age of 84, he still drove his own car and answered all calls regardless of inclement conditions until his final illness. He was a successful practitioner, highly esteemed in the community which he had capably served.

DR. S. D. MOORE

Dr. Moore had been a member for many years of the Grayson County Medical Association. He was elected an honorary member in 1933, which membership status continued until his death. During his fifty-nine years of practice in Van Alstyne, he had found time to take an active part in civic affairs. He had served for forty years on the school board. He was an elder and superintendent of the Christian Church for almost forty years.

Dr. Moore had been a member for many years of the Grayson County Medical Society, State Medical Association and American Medical Association. He was elected an honorary member in 1933, which membership status continued until his death. During his fifty-nine years of practice in Van Alstyne, he had found time to take an active part in civic affairs. He had served for forty years on the school board. He was an elder and superintendent of the Christian Church for almost forty years.

Dr. Moore was married to Miss Burem Henderson, in September, 1890, in Van Alstyne. His wife, who survived him, died November 14, 1944. He is survived by a son, Carlyle B. Moore, Van Alstyne; three daughters, Mrs Kathleen Ellis, Dallas; Mrs. Herman Arterberry, Pasadena, California, and Mrs. Roland Jones, Abilene; two brothers, J. B. Moore, Van Alstyne, and Dr. Hugh Leslie Moore, Dallas; and a sister, Mrs. Chowning Pritchett, Hollywood, California.

Dr. James Shelby McKown of Osceola, Texas, died September 13, 1944, in a Hillsboro sanitarium.

Dr. McKown was born October 16, 1861, in Ittawambia County, Mississippi, the son of Sampson and Tabiatha (Box) McKown. He came to Texas at the age of six, with his parents, who located in Hill County near Osceola. His academic education was received in the public schools and Baylor University. His medical education was obtained in Vanderbilt University College of Medicine, from which he was graduated in 1886. He had lived and practiced at Woodbury, Texas, four years and at Irene, Texas, eleven years, prior to his location in Osceola, which was his home for the remainder of his professional life. His total years of practice was fifty-eight years. He had taken postgraduate work at Tulane University College of Medicine.

Dr. McKown had been a member for many years of the Hill County Medical Society, State Medical Association and American Medical Association. He was also a member of the Central Texas District Medical Society. He was elected an honorary member of the State Medical Association in 1940, which membership status continued until his death. He had served one term as health officer of Hill County. Dr. McKown was a member of the Masonic order. He had continued actively in the practice of medicine until his final illness one month before his death. Throughout his years of practice, he had kept abreast of the advancements in medicine by constant reading of medical journals. He was highly esteemed in the community in which he lived and served for so many years as a faithful family physician.

Dr. McKown is survived by his wife, the former Miss Elizabeth Byford of Irene, Texas, to whom he was married in 1900. He is also survived by a sister, Mrs. W. E. Pierson of San Antonio, and a brother, W. F. McKown of Atoka, Oklahoma.

Dr. Oscar C. Pabst of Tyler, Texas, died suddenly October 14, 1944, at his home of coronary thrombosis.

Dr. Pabst was born March 5, 1866, in Tyler, Texas, the son of Julius and Marie Johanna (Frohne) Pabst. His academic education was received in the public schools of Tyler and the University of Virginia which he attended one year. His medical education was obtained in the University of Virginia medical College, which he attended one year and in the Tulane University School of Medicine, New Orleans, from which he was graduated in 1894. While attending Tulane University, he served as an externe in Charity Hospital, New Orleans, for one year, and after his graduation he was house physician at St. Mary's Hospital, Galveston, two years. He practiced medicine and surgery in Galveston for twenty-nine years, after which time he was compelled to retire because of the development of cataracts. He then removed to his home at Tyler, where he spent the remainder of his life.

DR. OSCAR C. PABST

Dr. Pabst was a member for many years of the Galveston County Medical Society while residing in that city, and of the Smith County Medical Society after his removal to Tyler. He was an honorary member of the State Medical Association of Texas

for many years, on the nomination of the Smith County Medical Society. While residing in Galveston County he served as yellow fever inspector at Lamarque, Texas, during the yellow fever epidemic of 1898. Despite his visual defect, he took an active and prominent part in civic affairs. Farming was his hobby and he devoted a large part of his time to pecan culture and propagation. He was a member of the Episcopal Church and an honorary life member of the Elks' fraternity.

Dr. Pabst was married in 1903 to Miss Blanch Ullman. His first wife died, and in 1917, he was married to Miss Elvira Adriance of Galveston, who survives him. He is also survived by one daughter, Miss Elvira Pabst; three sisters, Mrs. Carolina Hightower, Tyler; Mrs. Julia Willett, San Antonio, and Mrs. Bertha Pabst Madden, Tyler, and one brother, Fred C. Pabst, Galveston.

Lt. Col. William Emmett Ryan, M. C., A. U. S., was killed September 19, 1944, near Vendome, France, in an Army vehicular accident while on official business for his unit. He was buried September 20 at St. Corneille, France. A memorial service was conducted by the chaplain of Colonel Ryan's unit on Sunday September 24, 1944.

Dr. Ryan was born September 6, 1899, in Ardmore, then Indian Territory, Oklahoma, the son of Annie (Floyd) Ryan, and the late Reverend William Emmett Ryan. His academic education was received in the Oak Cliff High School, Dallas; Junior A. & M. College, Arlington, and Baylor University, Waco. His medical education was obtained in the Baylor University School of Medicine, Dallas. Following his graduation, he served an internship in Baylor University Hospital, Dallas. He then began the active practice of medicine at Midland, Texas, in 1926, and had been in the active practice of medicine and surgery in that city until called to active duty in the armed services during the present war.

DR. W. E. RYAN

Dr. Ryan began his military career when he enlisted in 1918 and was accepted as a member of the Students Army Training Corps while he was at Junior A. & M. College, Arlington. Upon graduation from medical school, he received a commission as First Lieutenant in the Medical Reserve Corps of the Army. Since that date he had attended Reserve Army Training camps throughout the years, including two periods spent at the Mayo Clinic, Rochester, Minnesota. When he was called to active service in September, 1942, his rank was that of Major, and on March 15, 1944, he was promoted to the rank of Lieutenant Colonel.

Dr. Ryan was a member continuously in good standing throughout his professional life of the Ector-Midland-Martin-Howard-Glasscock Counties Medical Society, State Medical Association, and American Medical Association. He served his county medical society as president in 1930. He was elected Councilor of the Second District of the State Medical Association in 1941 and served in this capacity until his call to the colors. He continued to hold the office of Councilor in absentia until his death, Dr. A. H. Fortner, Sweetwater, serving as acting Councilor for the District during Dr. Ryan's absence. He had also served the Second District Medical Society as president. He was a Fellow of the American Medical Association, and the American College of Surgeons, and had served the latter organization as a member of the regional fracture committee. He had served both the city and county of Midland as health officer for many years. Dr. Ryan was a surgeon of outstanding ability. He owned and operated the Ryan Hospital-Clinic in Midland, which served a large area of West Texas and New Mexico. Prior to his service in France, during the present war, he was stationed at Camp Polk, Louisiana, and Camp Gruber, Oklahoma. Dr. Ryan was considered one of the outstanding citizens of Midland and he took an active part in all civic enterprises. He was a charter member and past president of the Rotary Club. He was instrumental in that organization in establishing a student's loan fund to assist worthy students in getting an education. He personally aided many young people to obtain an education. He served for many years as a director of the Midland Chamber of Commerce and during his presidency of that organization, one of the outstanding rodeo plants of the nation was built at Midland. He was a member of the Baptist Church.

Dr. Ryan was a lover and advocate of clean sports. His favorite hobby was hunting and target practice, in which he indulged when he could find time from a busy surgical practice, and community affairs.

In Dr. Ryan's death, Midland lost a citizen of unusual attainments and leadership. He was universally beloved by all classes of the population and he will be sincerely missed.

Dr. Ryan was married March 15, 1926, to Miss Qunicy Belle Davis, R. N., daughter of Rev. and Mrs. M. I. Davis. He is survived by his wife; two sons, William Emmett, Jr., a student in the University of Colorado, Boulder, Colorado, and Charles Stewart, a student in Castle Heights Military Academy, Lebanon, Tennessee; a daughter, Quincy Belle, II, a student at Ward Belmont, Nashville, Tennessee; his mother, Mrs. W. E. Ryan of Abilene, and a sister, Mrs. John D. Lindley, Abilene.

Dr. J. Frank Gullette of Austin, Texas, died September 24, 1944, in an Austin hospital, of coronary thrombosis.

Dr. Gulllette was born July 20, 1879, in Plantersville, Mississippi, the son of Jesse and Mary Gullette. His medical education was received in the Memphis Hospital Medical College, from which he was graduated in 1904. He lived and practiced two years in Mississippi and one year at Memphis, Tennessee, prior to his location in Texas. He had lived and practiced at Pflugerville, Texas, prior to his location in Austin, which was his home for the remainder of his professional life.

Dr. Gullette was a member for many years of the Travis County Medical Society, State Medical Association, and American Medical Association. He was a member of the Baptist Church, a Scottish Rite Mason, and a member of Ben Hur Temple. He was held in high regard by all who knew him.

Dr. Gullette was married to Miss Delphina Eifler, January 30, 1907, in Austin, Texas. He is survived by his wife; one son, Dr. J. Frank Gullette, Jr., Austin; two sisters, Mrs. Mondo West, Saltilla, Mississippi, and Mrs. S. P. Harris, Boerne, Texas; and one brother, H. S. Gullette, Austin.

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Vol. XL **January, 1945** **No. 9**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

Local Committees for the Galveston Meeting are published herewith. While the personnel of local committees may not be of as much interest to our readers as the personnel of the standing and special committees of the State Association, it is possible that such information will be of importance to many of our readers at any time. Therefore, the expediency of publishing the list here, and thus early. For instance, we might hopefully anticipate that some of our readers would like to make suggestions to the Reception Committee, or the Clinical Luncheons Committee, or the Memorial Committee, or the Public Lectures Committee, or the Entertainment Committee, and more than likely the Committee on Hotels will assume a high degree of importance from here on out.

In this connection, it is suggested that those who expect to attend the Galveston Meeting (May 7, 8, 9 and 10), do something about hotel reservations. Hotel headquarters will be at the Hotel Galvez, with Scientific Section Meetings and Scientific Exhibits set up there, while the Woman's Auxiliary will have headquarters at the Buccaneer Hotel. Some of our Scientific Sections will hold forth at the Buccaneer Hotel, also. A list of hotels, tourist courts and the like, with rates and everything will be published later on. In the meantime, the Hotels Committee can help out.

Perhaps it will not be amiss to advise here that the scientific program for the meeting has been compiled, and it is good. There may be some finishing touches and changes, but probably not many. We are ready.

It is not certain at this writing, whether any efforts at entertainment will be made in connection with our annual meeting, but quite likely golf will be in order. It seems that it is quite difficult to suppress the golf bug. At this time, when we are anxious about the war, and grieving over War casualties, not even doctors will be able to engage in very many enterprises of an entertainment sort. However, conditions later on will dictate with respect to this matter.

It is not certain that there will be scientific exhibits, but a competent committee has been set up for the purpose of advising as to the details of such an exhibit. If our readers have suggestions to make to this committee or to the State Medical Association, they will be very much in order.

While the policy of filling churches with our distinguished speakers for the purpose of preaching public health sermons has long since been abandoned, there is still demand by the public for lectures on public health problems of current interest, hence a high-powered Public Lectures Committee. We are sure this committee will be glad to hear from any of our members who may have suggestions to make in that respect.

There are those who would advise with our Section Sponsors, and also certainly there will be demands for a variety of contacts with our distinguished guests. The list of Guest Sponsors will not be published until later, when the list of Guests has been compiled. Those who could meet and perhaps utilize the services in one way or another of our distinguished Guests, will need to advise

[1]Deceased, September 19, 1944.

with the appropriate Guest Sponsors, which sponsors will, in turn, advise with the State Secretary or his representative, in order that the necessary wires not become too greatly entangled. The list follows:

LOCAL COMMITTEES

General Arrangements.—Dick P. Wall, Chairman; John McGivney, W. C. Fisher, Edward Thompson and Raymond Gregory.

Reception.—William L. Marr, Chairman; A. O. Singleton, Boyd Reading. G. W. N. Eggers, M. A. Caravageli, Paul Brindley, William B. Sharp, William T. Anderson, Joseph Magliolo, Norman D. Jarrell, Henry A. Schmidt, William V. Cruce, Titus H. Harris, George S. McReynolds, Fred W. Aves, Frederick Fowler, Walter Kleberg, Edward Randall, Jr., Charles F. Mares, William F. Starley, M. L. Ross and Arild Hansen.

Clinical Luncheons.—John L. Otto, Chairman; Francis A. Garbade, Charles A. Hooks, Harvey Slocum, H. Reid Robinson, W. R. Cooke, William B. Potter, Frederick Fowler and Raymond L. Gregory.

Transportation.—Weldon G. Kolb, Chairman; Bernard Perlman and M. A. Caravageli.

Golf.—Edward Randall, Jr., Chairman; R. E. Cone, Clarence S. Sykes, C. T. Stone and W. R. Cooke.

Finance.—Titus H. Harris, Chairman; Jesse B. Johnson, E. B. Ritchie, Emil H. Klatt, George M. Decherd, John D. Weaver, Ben P. Fleming and Leo J. Peters.

Memorial.—E. B. Ritchie, Chairman; William B. Potter, Theo. McC. Frank and William F. Starley.

Information.—M. L. Ross, Chairman; William C. Levin, W. Frank McKinley and Wade L. Hoecker.

Scientific Exhibits.—Edgar J. Poth, Chairman; George R. Herrmann, Maynard D. Knight, Arthur Ruskin, Weldon White, Chester N. Frazier, H. H. Sweets, Jr., and Harvey Slocum.

Technical Exhibits.—Ed. J. Lefeber, Chairman; Nicholas Andronis, Lou Tomlinson and Mary Hoot Maxfield.

Public Lectures.—C. T. Stone, Chairman; Raymond L. Gregory, Edward H. Schwab, Walter Kleberg, Charles F. Mares and D. J. Herrington.

Publicity.—William B. Sharp, Chairman; Paul Brindley, George T. Lee and Leonard Twidwell.

Hotels.—Emil H. Klatt, Chairman; E. S. McLarty, N. Prujansky and Charles F. Mares.

Entertainment.—W. S. Wallace, Chairman; Titus H. Harris, J. L. Jinkins, Francis A. Garbade and Edward Randall, Jr.

Halls and Lanterns.—Jack R. Ewalt, Chairman; W. Frank McKinley, John Thiel, John D. Weaver, Fred W. Shelton, W. S. Wallace, Norman D. Schofield, Francis A. Garbade, Weldon White and C. S. Sykes.

Alumni Banquets.—Edward H. Schwab, Chairman; J. L. Jinkins, George T. Lee and John McGivney.

SECTION SPONSORS

Medicine.—Stephen Weisz and George M. Decherd.

Surgery.—Fred W. Aves and S. R. Snodgrass.

Obstetrics and Gynecology.—J. L. Jinkins and H. Reid Robinson.

Pediatrics.—Arild Hansen and Boyd Reading.

Clinical Pathology.—H. H. Sweets, Jr., and Norman D. Schofield.

Public Health.—Walter Kleberg and William D. Sharp.

Radiology and Physiotherapy.—Jesse B. Johnson and Chester N. Frazier.

Eye, Ear, Nose and Throat.—Frederick Fowler and William B. Potter.

We Should be on Our Legislative Toes, now that the Leigslature is about to meet. We may be sure that our legislative toes are in for a beating, and the beating had better be administered by us. If we are not on our own toes, the other fellow will be on them.

Our Legislative Committee advises that the legislative program of the State Medical Association is in good order, and that there is fairly good prospect of success in securing the enactment of the five measures we have underwritten, no doubt with amendments, most of them beneficial. The committee is largely advised as to the intent and purposes of several groups in the matter of legislation along public health and medical lines, but the committee cannot do very much about certain of these measures except by and with the help of the doctor at the bedside. Legislators who are responsive to the opinion and judgment of the medical profession will expect to be advised by their home doctors. Those legislators who are inclined to go off after strange gods will listen to the wrong doctor if they will listen to anybody. The big idea is for the home doctor to keep in touch with his legislators, with respect to all public health and medical legislation. Our Legislative Committee will see that the medical profession over the State is kept advised, both through the JOURNAL and through the news letters of our Committee on Public Relations. The complaint most generally made by members of the Legislature with regard to the matter, is that they hear plenty from the opposition, and little from their home doctors. That condition must be changed, and changed promptly and emphatically, if we are to make any headway in our efforts to procure the enactment of beneficial legislation, and defeat the efforts of those who would bring about the enactment of harmful legislation.

It seems quite likely, for instance, that the chiropractors will again attempt to legalize their practice. The Chiropractic Practice Act set up by the last Legislature has been killed by the courts, and upon such grounds as to make it appear quite likely that no such act can be made constitutional. In the face of such a contingency, it is expected that an effort will be made to amend the existing Medical Practice Act, which has been declared constitutional in practically every particular, so as to exempt from its application the practice of this cult. The contention will be that the practice of chiropractic is in the same category with dentistry, optometry and the like. Of course that is a fallacious contention. Dentists and optometrists have laws which presumably are constitutional, and which define their respective rights, lights and benefits. It is difficult to say how an exemption from the Medical Practice Act can be established upon any other basis.

However, the effort doubtless will be made, and our legislators must be warned against it, and warned by their friends and acquaintances in the medical profession rather than by our Legislative Committee alone.

A cult from which little has been heard down our way, the naturopaths, will attempt the impossible, as did the chiropractors during the last session of our Legislature. They are a little keener about it, but beyond any doubt any law which sets up a standard for this cult will do so in contravention of our Constitution, not to mention rhyme and reason. Our legislators will need to be warned about that.

The Postwar Planning Commissions throughout the country are planning a number of State laws designed to help in the reconstruction of our health setup, much of it beneficial, but some of it not so beneficial. All bills of the sort will be carefully analyzed by our Legislative Committee, and publicized by our Committee on Public Relations, and by the JOURNAL. Our legislators should be advised to make inquiries about all such measures. There will be those who will answer such inquiries, and it should be remembered that there is no law compelling a legislator to follow the advice of anybody in any such matters.

There will be the usual quota of illy devised and poorly thought-out public health measures. These will be studied and publicized.

Through all our legislative efforts we must remember that what we are trying to do is for the good of the public, and for the good of the medical profession only as it relates to its public service. Our advice and our pleas will be without prejudice, and our determination to politically oppose those who advocate the enactment of legislation sure to be harmful to scientific medicine and the public health, will be without malice. While we do not propose to pursue the methods of racketeer politicians, we feel sure that we may predict that the legislative calf who follows the steer over the hill and far away, will be more realistic when feeding time comes.

Our 1945 Membership at the close of business on January first, was exactly 146. Something should be done about it! Something will, of course, be done about it in due time, and the State Secretary hopes the time will be short. It should be known and remembered, that membership actually ceases with the calendar year. There is no such thing as a delinquent member in our Association. However, any member of last year may renew membership for this year through the simple expedient of paying dues for the year. After the close of the year, any such member must make application all over again if he would continue his membership. That is why on the date mentioned here, the membership was so low.

The total membership of the Association for last year was 4,678. The membership was divided as follows: Regular, 3,448; Intern, 26; Honorary, 51; Military, 1,149, and Emeritus, 4. The 1945 membership is divided as follows: Regular, 134; Intern, 6; Honorary, 0; Military 3, and Emeritus, 3.

The financial returns on membership last year, according to the above statistics, at $9.00 and $4.00 per capita, totaled $27,940.00. The income from the few members we had on the first day of the New Year, at $20.00, $4.00 and $1.00 per capita, was $2,707.00. It is easy to figure how many members we will need to secure this year in order to break even financially, but the big idea is not so much the matter of money, as it is a matter of membership. If there was ever a time when the medical profession should present a solid front, and stand shoulder to shoulder, it is now. It is to be hoped that not many of our members will fail to pay the increased dues, both because we will need the money to carry on routinely and in the support of our recently constituted and more recently revamped Committee on Public Relations. If we are to ward off or bypass the evil of so-miss-called socialized medicine, we will need to be most active, indeed, in educating both the medical profession and the public as to the serious and dangerous problems involved in the proposed change-over from the practice of medicine as an individual, private enterprise, to the group, and politically controlled practice which is threatening. In passing, it is our contention that if all concerned are properly advised about these matters, there won't be so much jeopardy to the medical profession and the public welfare as it relates to the practice of medicine, and that in any instance the objective sought in the movement to set up a new system of practice will be under the control of the medical profession rather than laymen, whether allegedly statesmen, or actually politicians. In the final analysis, it is regimentation by laymen, and particularly politicians, that we dread. All of which means that we should all pay dues, and do it now.

Inquiries are still reaching the State Secretary as to the amount of dues which should be sent him. The following tabulation is submitted in this connection:

Regular Membership	$20.00
Intern Membership	4.00
Honorary Membership	4.00
Military Membership	1.00
Member Emeritus	Nothing

The importance of paying dues early lies

in the help that prompt payment will be both to the county society secretary and to the State Medical Association Secretary. These are busy days, and there is a chronic shortage of help. The peak-load in any enterprise is rather burdensome under such circumstances. County society secretaries will be receipted and members will receive their membership cards as soon after dues are received in the office of the State Secretary as it is possible to take care of the necessary clerical work.

Annual reports are not due until April first, but may be made at any time. They should be made as soon as collections approach the 100 per cent mark. The State Secretary will furnish the necessary blanks, with the needed information.

CURRENT EDITORIAL COMMENT*

Recent Trends in Clinical Endocrinology.*— Clinical endocrinology in its phenomenal rise during the present century has passed through three phases of development. Its earlier growth which occurred during the first two decades of the present century was marked by the overenthusiasm which is characteristic of the development of a new field of activity. All conditions of unknown origin including many now recognized as congenital, metabolic or neurogenic in origin, were assumed to be due to endocrine dysfunctions. Therapy was replete with the use of dried extracts of many tissues which we now know to have been entirely worthless but for which nevertheless extravagant claims were made.

The second period of development of endocrinology took place during the third decade of the present century and is continuing unabated at the present time. This period saw the scientific development of endocrinology and its establishment on a firm experimental basis. Anatomical, physiological and biochemical studies revealed the function of the endocrine organs and served to widen the clinical applications of endocrine science. This period saw also the development of potent extracts and synthetic products capable of replacing the hormonal deficiencies induced by disease. It is no longer necessary to utilize crude and impotent preparations of glandular material but in many cases at least active potent and pure preparations are available commercially. It is true that in certain fields of endocrinology much is still to be accomplished in this respect. For example, the available preparations of the important anterior lobe of the pituitary have still much to be desired. Other products such as desoxycorticosterone do not represent the natural hormone and hence cannot serve as a complete replacement therapy. On the other hand, certain synthetic compounds, such as stilbestrol, present advantages over the natural product in their cheapness and ready availability.

Clinical endocrinology has now entered into its third stage of development in which the scientific accomplishments of the preceding decades are finding practical application in human disease. It is no longer necessary to depend upon empirical guesswork but the principles of endocrine practice may be based on exact scientific data. Products of proven value may be utilized not only as specific replacement therapy but for their pharmacodynamic effects in non-endocrine disorders. Diagnosis has as its aid many refinements of technique based on laboratory methods which permit detection of endocrine disease long before gross abnormalities are evident clinically and allow one to exclude endocrine disease as the basis of a given disorder.

ARTHUR GROLLMAN, M. D.
Professor of Experimental Medicine,
Southwestern Medical College, Dallas.

*This department of the JOURNAL presents editorial comments on current items pertaining to the science, art and practice of medicine, contributed by members of the State Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the State Medical Association of Texas to submit such discussions for this department. The discussions should not be more than 500 words in length.

ARMY MICROFILMS MEDICAL JOURNALS

The microfilming service of the Army Medical Library is keeping Army medical officers at remote installations in every theater of operation abreast of the latest published techniques and discoveries.

Starting with twelve medical journals in January, 1943, the list of periodicals microfilmed has grown to forty-four, covering the whole field of medicine. These are filmed immediately upon publication. Sent by airmail, military intelligence or diplomatic pouch, the rolls of film are in the hands of Medical Department personnel all over the world within fifteen days.

In addition to the medical journals, unpublished manuscripts describing even more recent developments are also microfilmed, and upon request sent to our military medical personnel.

The microfilm process saves approximately 95 per cent of shipping space. One 100-foot roll, for example, holds about 1300 pages or from twelve to fourteen journals. Whereas one roll of microfilm weighs about six ounces, the same amount of printed material would represent six pounds.—*News Notes*, S. G. O., Nov. 16, 1944.

Finding a person with tuberculosis in the minimal stage means a large saving to the individual and to the taxpayer; for such a person may be treated with little or no loss of time. Usually his disease does not become contagious and, therefore, he does not spread it to others. Furthermore, he, himself, does not fall ill, and therefore, does not require a long period of hospitalization.—*The Evolution of Tuberculosis by J. A. Myers, M. D.*, Minneapolis, Minn., 1944.

A NEW METHOD OF TREATMENT OF INFILTRATING CARCINOMA OF THE URINARY BLADDER

MAJOR T. BRENT WAYMAN, M. C., A.U.S.
and
ESTER C. MARTING, M. D.
CINCINNATI, OHIO

There are many factors to be considered in selecting the best method of treatment of infiltrating carcinoma of the urinary bladder. In a study based on 902 epithelial tumors of the bladder in the Carcinoma Registry of the American Urological Association from May, 1927, to January 1, 1934, there were 473 tumors studied, each of which involved a single bladder area. Of these tumors, 76.6 per cent were located either on the trigone, lateral walls, or involved the bladder neck; and 23.4 per cent arose on the posterior wall, vault or anterior wall of the bladder. Of the tumors which had been classified according to the grade of malignancy, 75 per cent of those involving primarily the vault were of grades 3 and 4. In marked contrast to the tumors of the vault were those involving the trigone, lateral walls, and bladder neck, 53.4 per cent of which were of grades 1 and 2. In other words, in the latter group, there is approximately an equal chance of its falling into the less malignant grades, while three out of every four vault tumors belong to the more malignant grades.

This relationship of location to the grade of malignancy has practical aspects with respect to treatment. From the standpoint of surgical treatment, only 23.4 per cent of the above tumors were readily accessible for complete excision without interfering with the ureter or the urethra. Furthermore, three out of every four of these tumors which were accessible to surgery were of grade 3 or 4 malignancy.

The tumors involving the lateral walls almost invariably require transplantation of one or both ureters, while those involving the trigone and bladder neck are unapproachable surgically except by deviation of the urinary stream and total cystectomy.

Theoretically, total cystectomy with transplantation of the ureters into the large bowel or skin, when skillfully performed, should give the highest percentage of cures. Yet, in spite of the improvements in technique and the use of chemotherapeutic agents in combating infections, the number of successfully treated cancers of the bladder has not increased as we had hoped. Too frequently, following transplantation of the ureters, it is found that the tumor has invaded the surrounding tissues when the bladder is exposed at the time of cystectomy. It seems that if we are to improve our results in the treatment of infiltrating bladder cancers, it is essential that we have a procedure which both the surgeon and the patient are willing to carry out as soon as the disease is discovered.

The majority of urologists believe that cancer of the bladder cannot be eradicated by radiation therapy and that this treatment is indicated only as a palliative measure or to control hemorrhage. The bladder, trachea, nasal passage, and the cervical canal are lined with stratified epithelium, and Ewing has designated the growths developing from these mucous membrane linings as "transitional-cell carcinoma." It may be enlightening to examine the results of radiation therapy in these other transitional-cell carcinomas. For many years, carcinoma of the cervical canal has been treated almost exclusively by radiation therapy. Cutler, in a recent publication, reported 82 per cent "three-year cures" in 50 cases of intrinsic squamous carcinoma of the vocal cords treated with concentration radiotherapy. Cutler further states: "Lesions that were radio-resistant to the old type of irradiation used many years ago are radio-sensitive to the methods used today." Barringer and Dean of the Memorial Hospital have reported "about 25 per cent five-year cures of infiltrating carcinoma of the bladder" treated by interstitial radiation as applied through a suprapubic cystotomy.

Bladder tumor regression resulting from radium or its emanation has been observed with such regularity as to demonstrate its potential value. Unquestionably, interstitial radiation is the most flexible method of treating bladder tumors. At the present time, there are two main methods of implantation of radium or its emanation. If the tumor is small and its position permits accurate visualization, radon seeds may be implanted transvesically through the cystoscope. In the larger tumors, the bladder is opened by a suprapubic cystotomy and the radium or its emanations implanted into the tumor through the inner surface of the bladder. (Fig. 1, left.) This method has serious drawbacks. In the first place, the bladder is opened, permitting the walls to contract and causing the mucous membrane to become folded. This makes the actual margin of the tumor difficult to outline and does not permit accurate implantation of the tissue immediately adjacent to the tumor itself. Since this method requires working from the inside of the bladder, one cannot always determine to just what depth the bladder wall has been invaded, and, furthermore, there necessarily must be a limit to

From the Department of Surgery, Division of Urology, University of Cincinnati, School of Medicine and Tumor Clinic, Cincinnati General Hospital.
Read before the Section on Surgery, State Medical Association of Texas, San Antonio, May 3, 1944.

the depth of the implantation as the unprotected surrounding tissues are vulnerable to radiation. Following the operation, the bladder is drained by a suprapubic tube, permitting severe secondary infection to take place. Since the bladder remains collapsed following operation, the normal bladder walls may receive sufficient radiation to produce painful and, at times, severe reactions.

We are presenting a new method of interstitial radiation which we believe overcomes most of these handicaps and offers a technique by which sterilizing doses of radiation may be applied to bladder tumors without injury to the surrounding tissues.

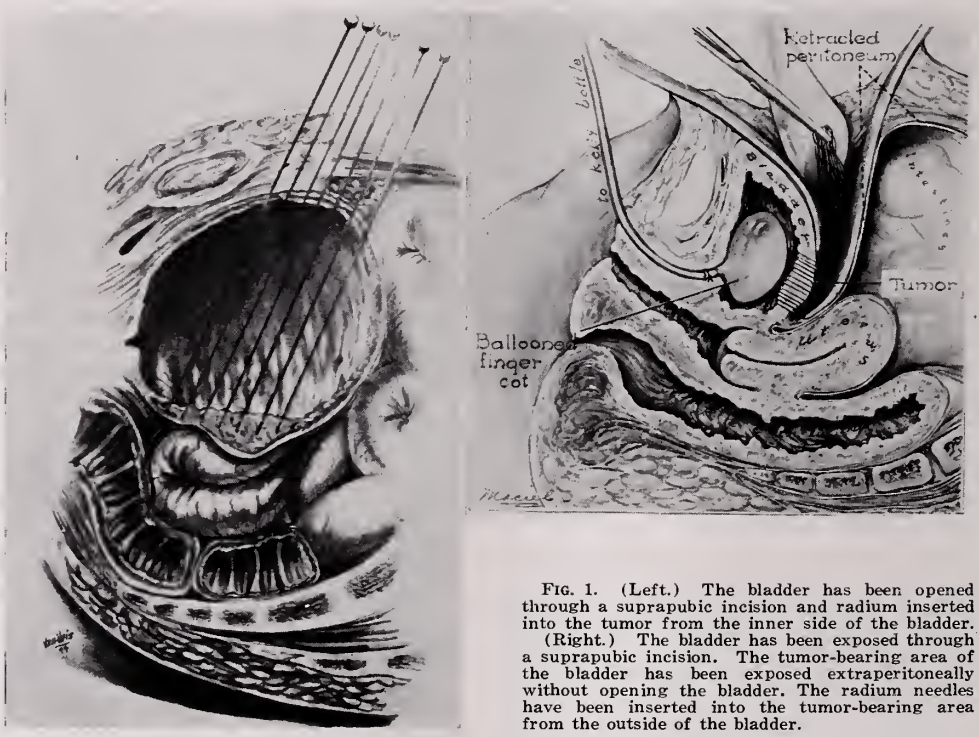

FIG. 1. (Left.) The bladder has been opened through a suprapubic incision and radium inserted into the tumor from the inner side of the bladder. (Right.) The bladder has been exposed through a suprapubic incision. The tumor-bearing area of the bladder has been exposed extraperitoneally without opening the bladder. The radium needles have been inserted into the tumor-bearing area from the outside of the bladder.

Experience has shown that the tumor may be much more extensive than is indicated by the cystoscopic and x-ray visualization. The infiltrating mass may extend in any direction from its mucosal site. In employing this method, it is important to determine whether the tumor mass is situated in the base of the bladder or at some other location so that the proper exposure of the bladder may be utilized.

The operation is generally performed under spinal anesthesia. After the patient has been anesthetized, a careful bimanual examination is performed. As suggested by Jewett, we have found that even in male patients the mass may be felt when the patient is under anesthesia. If the tumor is definitely located on the trigone and can be palpated through the vagina or rectum, the bladder is exposed by using either the vaginal or perineal approach. If the tumor is located in a position other than the trigone, the suprapubic approach is employed. Should the tumor arise from the wall of the bladder and have invaded the upper part of the trigone, and if it cannot be felt on rectal or vaginal examination, the suprapubic approach should be used. On one of our female patients, weighing about 250 pounds, our preliminary examinations had indicated that the tumor should be exposed through the vagina. After examining her under anesthesia, we employed the suprapubic incision. The tumor in this case was located on the posterior wall and had invaded the upper part of the trigone. We had no trouble in exposing this tumor from above.

SUPRAPUBIC APPROACH

An ordinary urethral catheter with a finger cot tied about the end so that the cot may be distended with fluid, is inserted into the bladder. The catheter is connected to a reservoir of sterile solution so that during the operation the bladder may be distended or collapsed by having a nurse raise or lower the reservoir. The bladder is distended with fluid and exposed through a low midline suprapubic incision.

The Bladder Is Not Opened.—(Fig. 1, right, and Fig. 2, left.)—Knowing the location of the tumor and being able to palpate the indurated area, this portion of the bladder

surface is readily exposed by stripping away the perivesical tissues. The extent of the tumor is then determined and measurements made. In all of our cases, we have employed radium needles, using a filter of 0.5 millimeter of platinum. Our needles were approximately one, two, and three centimeters in length and contained respectively, one, two and three milligrams of radium.

The radium needles are implanted without regard to the ureters, and it causes no damage if their tips enter the bladder cavity. If the tumor has involved a ureteral orifice and produced a hydroureter, the ureter probably should be opened and a catheter inserted for drainage. The number and size of each needle is recorded. The strings which are attached to the ends of each needle are allowed to extend out of the wound. The surrounding structures are held away from the radium for a distance of two to three centimeters with vaseline gauze strips. The wound is partially closed about the strings and the ends of the gauze. The catheter with the attached finger cot is removed and an indwelling catheter inserted through the urethra. The catheter is connected to a closed irrigating system as is frequently used following transurethral resections. Each time the bladder is irrigated, some fluid is left in the bladder so that it may be partially distended at all times.

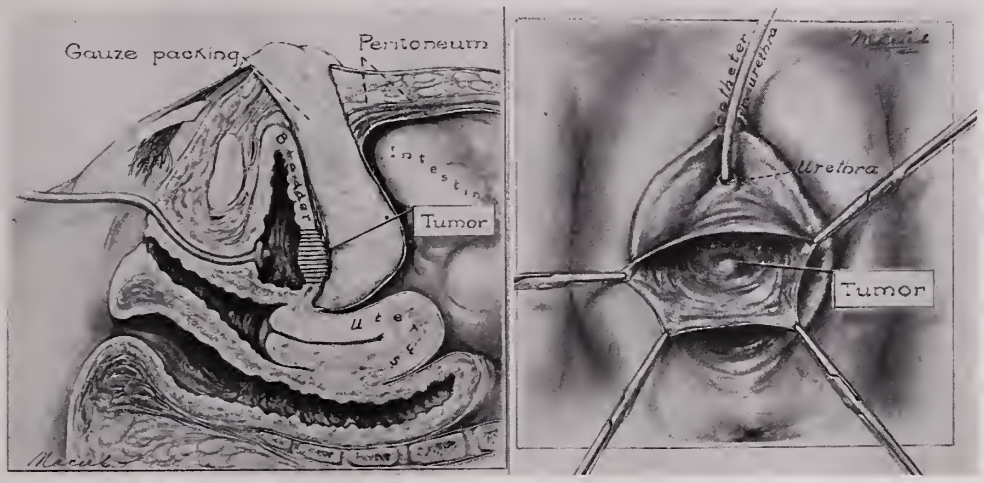

FIG. 2. (Left.) Vaseline gauze has been placed between the radium and the peritoneum to protect the surrounding tissues from the radiation. The wound has been closed about the gauze and the strings to the needles. An indwelling uretbral catheter has been inserted into the bladder.
(Right.) The anterior vaginal wall has been dissected down exposing the tumor-bearing area in the base of the bladder. Young's prostatic tractor has been used to pull the bladder forward.

VAGINAL APPROACH

If the tumor is situated on the trigone of a female patient, the bladder is not distended during the operation. Young's prostatic tractor may be inserted and used to pull the bladder into the wound. The patient is placed in the lithotomy position and a curved incision is made in the anterior vaginal wall, which is then stripped down, exposing the base of the bladder. (Fig. 2, right; Fig. 3, left, and Fig. 3, right.) The tumor is treated as above. When the radium and gauze are removed, the anterior wall of the vagina folds back into its normal position without anything more being done.

PERINEAL APPROACH

When the tumor is situated on the male trigone, the base of the bladder may be exposed by the perineal route, employing Young's technique of exposing the seminal vesicles in his radical operation for tuberculosis of the seminal tract. (Fig. 4, left; Fig. 4, right, and Fig. 5, left.) Although we have not had an occasion to try this technique, we believe it to be feasible. There may be some difficulty if there is a large hypertrophied prostate, and it may be necessary to remove a wedge section from the surface of the prostate to give adequate exposure to the base of the bladder.

In the fall of 1941, we had under observation at the Cincinnati General Hospital, a woman, age 73, with an infiltrating carcinoma of the bladder which involved the trigone and surrounded the right ureteral orifice. This tumor could be palpated through the anterior vaginal wall. The tumor, as felt through the vagina, was many times larger than it appeared on cystoscopic vision. Roentgenograms of her spine showed a destructive lesion which was interpreted as a metastatic lesion. After a biopsy was obtained, she was treated by palliative transvesical electrocoagulation. After six months there was no change in the bone lesion; however, the size of the bladder tumor had increased and had extended along the bladder wall almost to

the anterior surface of the cervix. On March 12, 1942, this tumor was exposed via the vaginal route as described above. Thirteen three-milligram needles of radium were implanted and left in place for 120 hours. She was permitted up on the second day after the radium was removed and was discharged eleven days later. She had very little bladder discomfort postoperatively and the vaginal wound was healed upon her dismissal from the hospital. She has been followed in the tumor clinic and is well without evidence of recurrence two years after operation.

We have employed this method in six cases, two by vaginal and four by the suprapubic approach. Our total doses of radium in this series ranged from 4341 to 7320 millicurie hours.

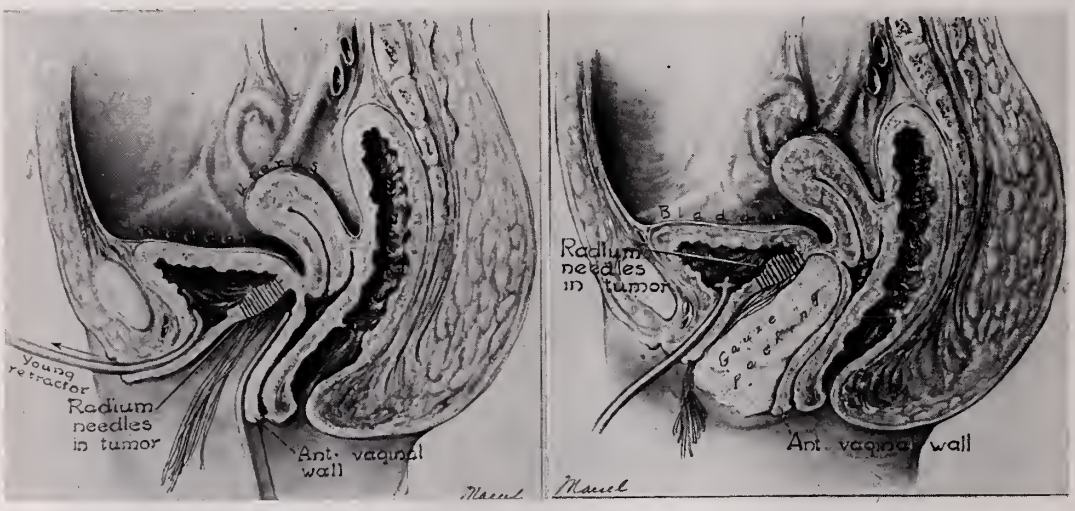

FIG. 3. (Left.) The anterior vaginal wall is being retracted posteriorly and the radium needles have been inserted in the tumor-bearing area in the base of the bladder.
(Right.) Vaseline gauze has been placed between the radium and the anterior vaginal wall to protect the vagina and rectum from the radiation. The strings to the radium needles and the gauze extend out through the incision. An indwelling urethral catheter is in the bladder. The wound is not closed.

TECHNIQUE OF INTERSTITIAL RADIATION

If the needles are placed approximately one centimeter apart throughout the entire tumor-bearing area, all of the malignant cells will receive the minimum lethal dose. Roughly, the intensity of the radiation is greatest adjacent to the sides of the needle and rapidly diminishes in intensity as the distance increases. For this reason, the needles should not be separated more than a centimeter in order that the cells 0.5 cm. away from the needles will receive a lethal dose. The needles should be placed parallel to one another so that they do not crisscross and produce overconcentration of radiation at any single point. The needles are placed in rows one centimeter apart in several parallel planes. It is usually found advantageous to insert the needles in the tumor mass so that they are pointed obliquely to the lumen of the bladder. The first row of needles is inserted along the actual margin of the tumor which is fartherest away in the operative field. The needles in the second row are so placed that they are in alternating positions with those of the first row. If a third row is necessary, this alternating of positions is continued. The length of needles to be used is determined by the size of the tumor-bearing area to be implanted. (Fig. 5, right.) Since the intensity of the radiation diminishes so sharply with distance from the source it is only necessary to use a thickness of 2 to 3 cm. of vaseline gauze to protect the surrounding structures.

The removal of the radium needles is very simple. Some of the vaseline gauze is removed from the wound. The strings are separated from one another and the needles are withdrawn one at a time by pulling on the strings. Enough of the vaseline gauze is left in the wound to act as a temporary drain.

DOSAGE

The minimum dose which is required to sterilize a tumor of a given size is not known. Accumulated clinical evidence seems to place this dose between ten to fifteen threshold erythema doses. The volume of the tumor in cubic centimeters is the product of the three dimensions of the implanted area. The strength and number of the radium needles that have been used in each case is known. The number of threshold erythema doses to be employed, usually between ten and fifteen, is selected, and by referring to a table prepared by Quimby, the number of millicurie hours required is given. (Table I). The number of millicurie hours thus required is divided by the number of milligrams of radium

which has been implanted, giving the length of time the radium should be left in the tumor.

We do not believe this is the method of choice when a tumor has invaded the prostate. In one such case, after inserting

TABLE 1*

Threshold Erythema Doses	Volume of Tumor in Cubic Centimeters					
	10	20	30	40	60	80
	Millicurie Hours					
10	2750	3800	4700	5300	6500	7,500
12	3300	4560	5640	6360	7800	9,000
15	4125	5700	7050	7950	9750	11,250

*Table prepared by E. H. Quimby shows how much initial radium is needed to treat a tumor of any size when evenly spaced radium needles are used. Filter 0.3—0.5 mm. Pt. These doses are for needles to be left in place four days or longer.

radium needles from the outer surface of the bladder, we opened the bladder and inserted a pack consisting of four three-milligram needles of radium in the prostatic urethra. Follow-up cystoscopic examination two months later showed the bladder to be healed without evidence of tumor. The right lateral lobe of the prostate was absent as if it had been removed with the resectoscope. However, the patient was readmitted to the hospital nine months later with a recurrence of his tumor. The consistency of the prostate is such that one is unable to determine the extent to which the prostate has been invaded and therefore prevents the accurate implantation of radium. These cases probably should be treated by radical prostatocystectomy.

This method has also been found not to be applicable in malignant multiple papillary tumor of the bladder. In one patient in which this method was attempted, the bladder wall was found to be extremely thin and was torn when the needles were inserted. In this case, the tumor had spread through the bladder wall and had invaded the peritoneum without producing an indurated mass.

It is obvious that this method can be employed only in infiltrating carcinomas. Should a tumor be exposed by this method and then found not to have infiltrated the bladder wall, the bladder may then be opened and the appropriate therapy carried out.

COMMENT

It seems rather obvious, after many years of surgical attempts by our most skilled surgeons, that surgical excision short of total cystectomy is futile in these infiltrating bladder tumors. In fact, most of the tumors that have been cured by partial resection of the bladder probably would have responded just as satisfactorily to local electrocoagulation.

From the standpoint of radiation therapy, it is essential to administer a certain minimal dose of radiation to all of the malignant cells and at the same time to protect the rest of the organism. At this time, we do not have a method of external radiation that meets these requirements. We believe we have presented a method of interstitial radiation which approaches this goal. When radium is used by

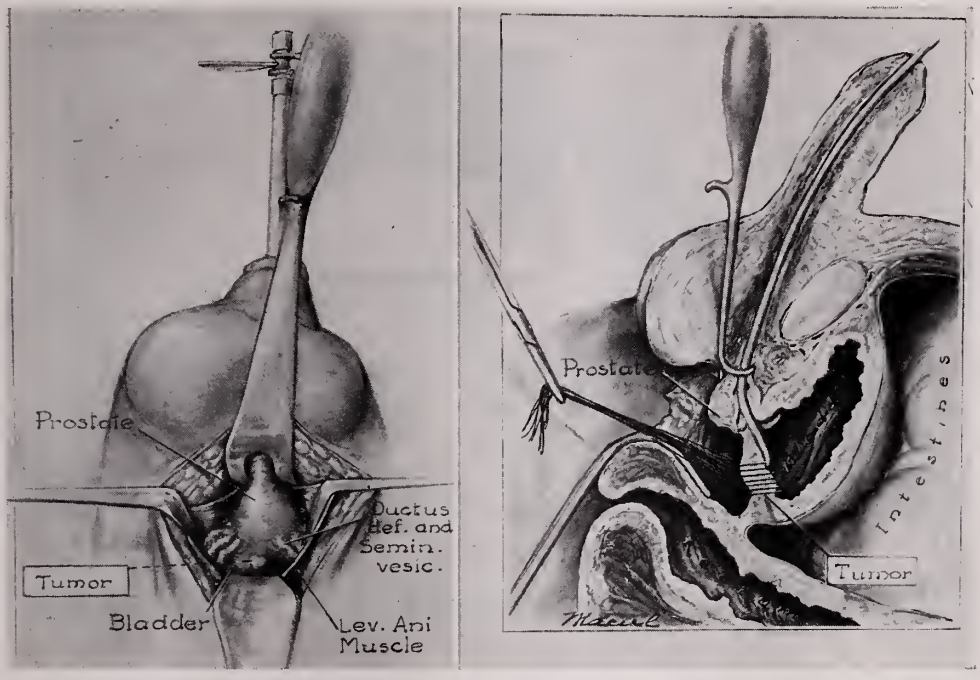

Fig. 4. (Left.) The prostate, seminal vesicles and tumor-bearing area in the base of the bladder have been exposed according to Young's technique of radical operation for tuberculosis of the seminal tract. (Right). Radium needles have been inserted in the tumor-bearing area of the base of the bladder.

this method with a filter of 0.5 mm. of gold or platinum, there is no damage to the surrounding structures except perhaps to the bladder itself. This filter removes the alpha and the very highly necrotizing beta rays, leaving the composition of the radiation 100 per cent gamma rays. Every point within the tumor mass must receive at least a certain minimal dose and it is most essential that the "growing edge" of the tumor receive this minimal dose. Necrosis may occur spontaneously in the center of the tumor, but this is not true of its infiltrating margins. This method of leaving the bladder intact and exposing the tumor from the outer side enables one to palpate the tumor-bearing area under direct vision and thereby learn at the beginning of treatment the true extent of the disease. If there is gross extension to the surrounding tissues, one can dismiss any idea of future radical surgery. The bladder may be deflated and the tumor palpated without the interference of the surrounding structures. Then, by distending the bladder, the radium may be placed at the very margin of the tumor and in the immediate surrounding bladder wall. Often the tumor is found to be much more extensive than one judges from viewing the bladder from its interior aspect. Since the radium is applied from the outer side of the bladder, there must be radiation to that portion of the tumor which has infiltrated nearest to the capsule of the bladder. If the radium has been skillfully applied and the correct dosage administered, there should be no slough of the bladder wall at the site of the tumor. However, should this occur, good surgical drainage has already been established and since the surrounding tissues are undamaged and the fistulous tract is long, it may either heal spontaneously or be repaired surgically.

This is a primary treatment and is applicable in inoperable, as well as operable, bladder tumors. Thus, radical treatment is possible as soon as the diagnosis is made and the true extent of the tumor-bearing area is discovered early. The operation is of short duration and is without shock to the patient.

In this procedure, the tumor is not cut across and the spread of tumor cells in scar tissue is prevented.

Bladder infection is kept at a minimum and when ureteral obstruction is present, the ureter may be opened at the time of operation and good urinary drainage established.

This method attacks early the growing edge of the tumor. If the tumor presents a large intravesical mass, this portion is removed with the resectoscope at the time a biopsy is taken. If, after the application of radium, it is found that there is tumor remaining in the bladder, this portion may be either coagulated, treated with transurethral implantation of radon seeds, or the radium may again be applied by the original method. Also, if the tumor is found not to respond, total cystectomy may still be performed and the patient will have had the benefit of preoperative radiation to the tumor area. Finally, if this treatment is successful, the patient has an intact urinary tract.

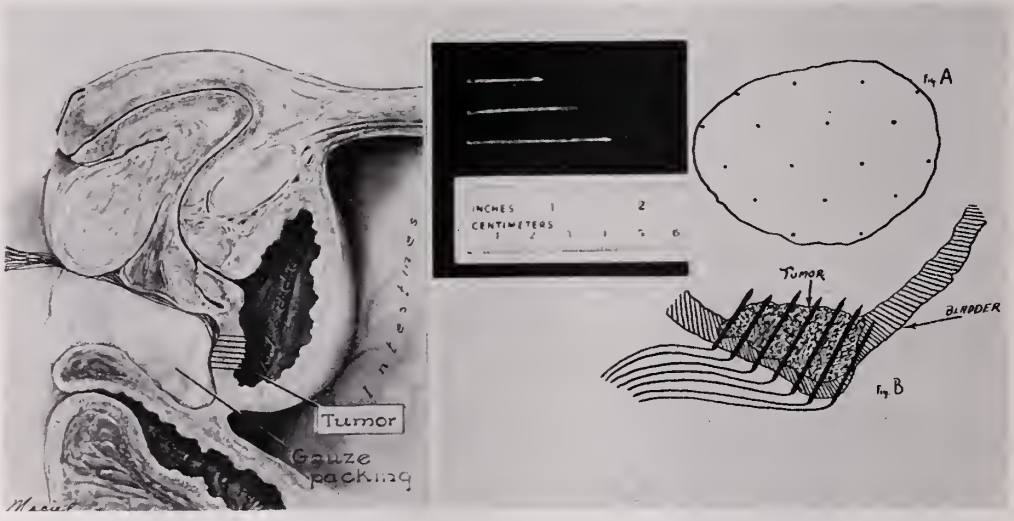

Fig. 5. (Left.) The rectum and surrounding structures have been protected from the radiation by vaseline gauze. The gauze and strings to the radium needles extend out the perineal incision. An indwelling catheter has been inserted in the bladder.

(Right.) A photograph of the radium needles in three lengths used in implanting the tumor-bearing area. *a.* A cross-section of the tumor-bearing area showing the position of the needles. The needles are placed in alternating positions approximately 1 cm. apart. *b.* A sagittal section showing the position of the needles in the tumor. The needles are inserted so that they are parallel to one another to prevent overconcentration of radiation at any one point in the tumor.

CONCLUSION

1. A new method is presented for the treatment of infiltrating carcinoma of the urinary bladder whereby adequate radiation may be applied without injury to the surrounding structures.

2. Infiltrating carcinomas of the bladder are radio-sensitive to the present day methods of interstitial radiation.

3. This method is applicable in inoperable, as well as operable, bladder tumors.

4. This method should be tried in a large series of cases to determine its efficacy.

We wish to extend our most sincere appreciation to Miss Mary Maciel of the Art Department, University of Cincinnati, for her very excellent drawings.

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DIAGNOSIS OF ACUTE APPENDICITIS

LT. COL. HERBERT C. FISHER, M. C., A.U.S.

The accurate diagnosis of appendicitis is often difficult. As a result, many diseased appendices perforate while an even larger number of normal ones are removed on suspicion. Because of the difficulty in diagnosis and the fear of subsequent attacks, some extremists have gone so far as to advocate the removal of all appendices.

The following observations are based on an experience with over three thousand consecutive cases admitted to Brooke General Hospital with a diagnosis of appendicitis. Fifteen hundred were operated upon. Among these there were one thousand instances of acute suppurative appendicitis. There were no deaths during the period of this study from September 17, 1940 to April 11, 1944.

Acute appendicitis is the most common surgical disease of the abdomen. The surgeon, having learned the accurate diagnosis of appendicitis, has learned the principles of abdominal diagnosis.

Pain is the cardinal symptom of acute appendicitis; this is of two types: the early generalized cramping pain and the subsequent localized pain. When the surgeon is consulted the pain is usually localized. The diagnosis depends upon the history, the physical findings, and the manifestations of the constitutional reaction of the individual to the inflammatory process.

In interpreting the history, it is important to remember that the cramping pain is related to increased intestinal activity which may also be manifested by nausea, vomiting, anorexia or diarrhea. Diarrhea is uncommon but it does occur in this phase of the disease.

The localized right lower quadrant pain is referable to the advancing inflammation in the appendix. As this occurs the cramping pain ceases and the abdomen becomes quiet.

Our examination follows a fairly regular pattern and we lay great stress on the utilization of all the classical methods of physical diagnosis. The following plan is directed toward determining the localization of the pain in terms of the four abdominal quadrants and the depths of its origin, the abdominal wall or viscera.

The abdomen is carefully inspected, preferably from a sitting position at the bedside. (Fig. 1 *a*) The absence of abdominal respiratory movement suggests the presence of generalized or localized peritonitis. Abdominal distention is often present late in acute appendicitis.

Gentle palpation of the abdominal wall demonstrates the presence of superficial tenderness. (Fig. 1 *b*) This is rarely found in acute appendicitis except when associated with parietal peritonitis.

Deep palpation of the left lower quadrant results in pressure over the descending and sigmoid colon. If pain is then noted in the right lower quadrant, a positive Rovsing's sign is present. (Fig. 1 *c*) The quick relief of pressure, resulting in shooting pain across the lower abdomen to the right lower quadrant, is indicative of rebound tenderness. Both of these signs are important. The enlargement of the spleen or liver is noted on palpation and percussion of the upper quadrants. Auscultation of the abdomen is accomplished, and the attention of the examiner is then directed to the right lower quadrant.

The area of maximum deep tenderness is located by the gradually increasing pressure of the examining hand over several areas of the right lower quadrant. (Fig. 1 *d*) This is confirmed by tapping and vigorous percussion of the abdominal wall. Voluntary contraction of the abdominal muscles on deep palpation, so-called guarding, is indicative of visceral disease. Pain radiating to the epigastrium or para-umbilical region on deep pressure over the area of maxium tenderness is known as a positive Aaron's sign. (Fig. 1 *e*). The presence of this sign is of considerable diagnostic importance, the absence of it means nothing.

The area of maximum tenderness having been determined, the differentiation of parietal from visceral pain is accomplished as follows: deep pressure is applied to the area of maximum tenderness, and the patient is requested to elevate his fully extended legs.

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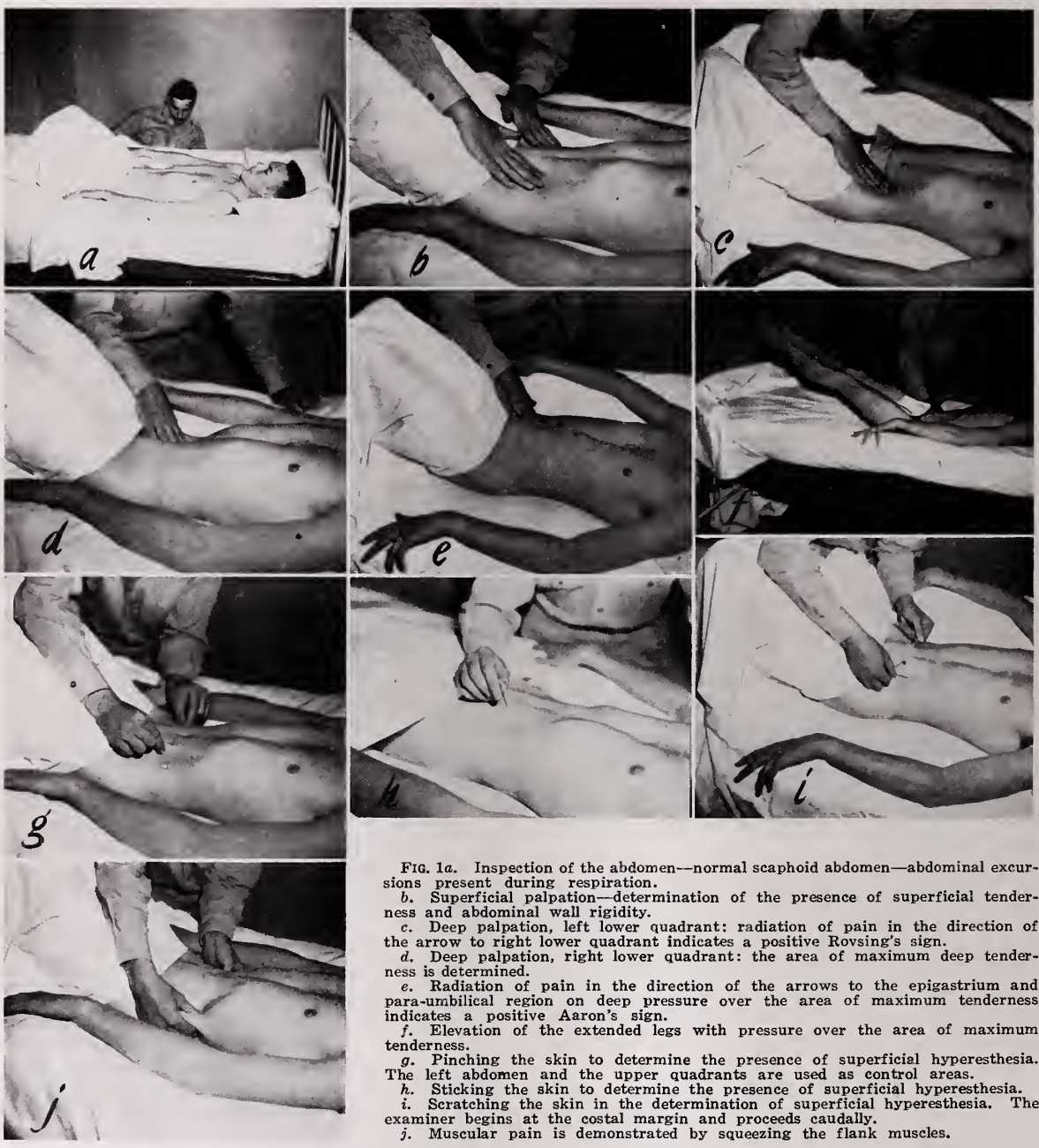

FIG. 1*a*. Inspection of the abdomen—normal scaphoid abdomen—abdominal excursions present during respiration.
b. Superficial palpation—determination of the presence of superficial tenderness and abdominal wall rigidity.
c. Deep palpation, left lower quadrant: radiation of pain in the direction of the arrow to right lower quadrant indicates a positive Rovsing's sign.
d. Deep palpation, right lower quadrant: the area of maximum deep tenderness is determined.
e. Radiation of pain in the direction of the arrows to the epigastrium and para-umbilical region on deep pressure over the area of maximum tenderness indicates a positive Aaron's sign.
f. Elevation of the extended legs with pressure over the area of maximum tenderness.
g. Pinching the skin to determine the presence of superficial hyperesthesia. The left abdomen and the upper quadrants are used as control areas.
h. Sticking the skin to determine the presence of superficial hyperesthesia.
i. Scratching the skin in the determination of superficial hyperesthesia. The examiner begins at the costal margin and proceeds caudally.
j. Muscular pain is demonstrated by squeezing the flank muscles.

(Fig. 1 *f*) If the pain is relieved, it is in all probability visceral in origin. If it is accentuated or the patient is unable to elevate his legs because of the pain, it is parietal. Confirmation of this is obtained by performing a brief neurological examination of the abdominal wall. The entire abdomen is examined, using the left side as a control. Pain sensation is elicited by pinching the skin or by sticking or scratching it gently with some sharp instrument. (Fig. 1 *g*, *h*, and *i*) Muscle involvement is demonstrated by squeezing the flank muscle on either side between the thumb and index finger. (Fig. 1 *j*) Trigger points may be noted along the involved segmental nerve, and the neurological examination is continued laterally and posteriorly to the spine. Relief of pain following a careful block of the segmental nerves supplying the region of hyperesthesia confirms the presence of parietal pain.

Finally, rectal examination may aid in determining the sensitivity of the individual to pain and also to demonstrate right-sided tenderness resulting from an inflammatory process in the pelvis.

Increased pressure within the lumen of the appendix, jarring of the area of inflamma-

tion, and pressure over this region from without, are the basis for most of the signs which have been described as aids in diagnosis. Increased pressure within the lumen of the appendix may be secured by (1) injection of air into the rectum, Bastedo's sign, and (2) by pressure over the descending colon in the left lower quadrant, Rovsing's sign.

Jarring of the inflamed appendix is secured in the demonstration of rebound tenderness, tapping of the abdominal wall and vigorous percussion of the area. Pressure from without is the basis for demonstrating the site of localized tenderness, that is, deep pressure on the abdominal wall. We are at a loss to explain the fundamental mechanism involved in the demonstration of Aaron's sign—the radiation of pain to the epigastrium on pressure over the area of maximum tenderness.

The constitutional signs of appendicitis are those of leukocytosis, fever and an elevation of the pulse rate. A leukocyte count of ten to fifteen thousand per cubic millimeter of blood is common, although an increase up to thirty thousand has been observed. A leukopenia of six thousand or under is not uncommon.[9] The differential count, including a Schilling determination, often gives a more accurate picture of the state of the leukocytes. The oral temperature, although usually below 100° F. may be elevated to 103° F. in simple acute appendicitis. Such a temperature at times is preceded by a chill. The elevation of the pulse rate follows the temperature curve. This elevation, however, may occur before the temperature begins to rise.

Abdominal pain may originate in the parieties or the viscera. The surgeon aware of the common occurrence of parietal pain will improve his diagnosis greatly. This was emphasized years ago by Carnett and later by Bates and others.[1, 3, 4, 5, 6, 7, 12] Carnett estimated that 50 per cent of all individuals at that time with a preoperative diagnosis of acute appendicitis received incorrect diagnoses.[6] (Fig. 2 *a*, *b* and *c*) The pain in this group of individuals originated in the abdominal wall. This startling revelation has been mislaid in the files of medical literature. There is one reason for this. Those who reported on the subject failed to emphasize the frequent association of parietal and visceral pain. Parietal pain is located in the abdominal wall. It is most commonly a neuralgia, segmental in distribution. For some unexplained reason it is observed most frequently in the right lower quadrant, although it may occur anywhere in the abdomen.[2] (Fig. 3 *a*, *b* and *c*.) The duration of acute appendicitis is of hours or days, that of parietal pain of days, weeks or even months. The patient describes the pain of parietal neuralgia as "a tearing apart," "stabbing," "squeezing" or "grinding" in character. It is accentuated by exer-

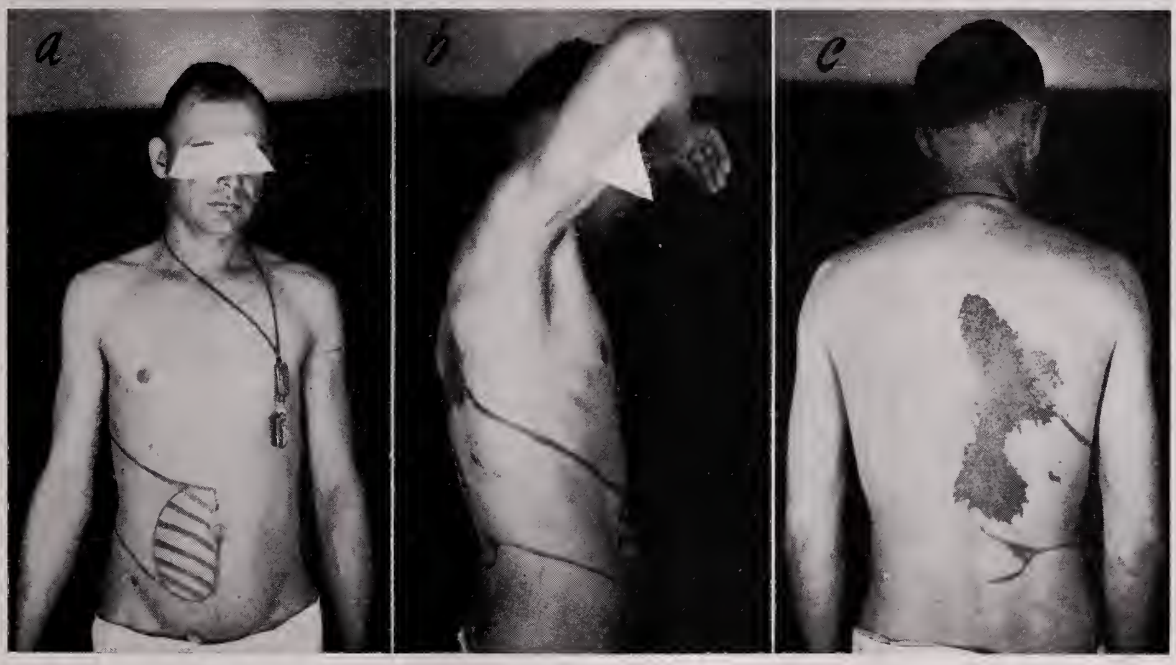

FIG. 2*a*. Twenty-six-year-old male admitted with a diagnosis of acute appendicitis, WBC 6,200. Complete, lasting relief of pain following a block of the segmental nerves supplying the shaded area. The shaded area indicates the area of maximum tenderness. Hyperesthesia present within the black lines.
b. Lateral view of patient shown in Figure 2 *a* showing lateral extension of hyperesthesia.
c. Posterior view of patient shown in Figure 2 *a*. Dark area is a congenital nevus.

cise such as running or heavy lifting. It most commonly follows an upper respiratory infection, particularly in children.[8] The association with pelvic inflammatory disease, typhus, food poisoning and osteoarthritis of the spine has been observed. At times no etiologic source can be found for this neuralgia. Visceral and parietal pain often occur together, particularly in the presence of a long-standing suppurative process within the abdomen.

If there is any question as to the presence of visceral disease the abdomen should be explored. There is a group of cases, however, in which sensitivity of the skin to pain and pressure is exquisite. No deep tenderness can be demonstrated. The examining hand is pressed far into the abdomen without evidence of muscular resistance. The tenderness is superficial. The surgeon may afford to continue careful observation in this instance.

In the past few years a change has occurred in the prognosis of appendicitis. Reports are appearing in medical periodicals emphasizing the decrease in the mortality. Several factors are responsible: the advent of the sulfonamides[11, 13] and of early ambulation,[10] a more conservative approach to the treatment of generalized peritonitis, improvement in surgical technique, better diagnosis and a more widely disseminated knowledge of the symptoms of appendicitis.

Once the diagnosis of appendicitis is made, appendectomy, of course, should be performed at the earliest practical moment. The removal of a normal appendix is of questionable prophylactic value. The accurate diagnosis therefore is the ultimate objective. It is safe to continue observation in doubtful cases if the patient is watched closely. In our experience no harm has resulted from observing the patient on an hourly basis. Intravenous fluids may be administered, the leukocyte count checked and the progression of symptoms closely watched. An upright plate of the abdomen may be of help. In establishing the diagnosis, the surgeon of today has more information at his finger tips than ever before. If a little more time is taken in establishing an accurate diagnosis, this may be used to advantage. The day of rushing the patient to the operating room without painstaking study has passed.

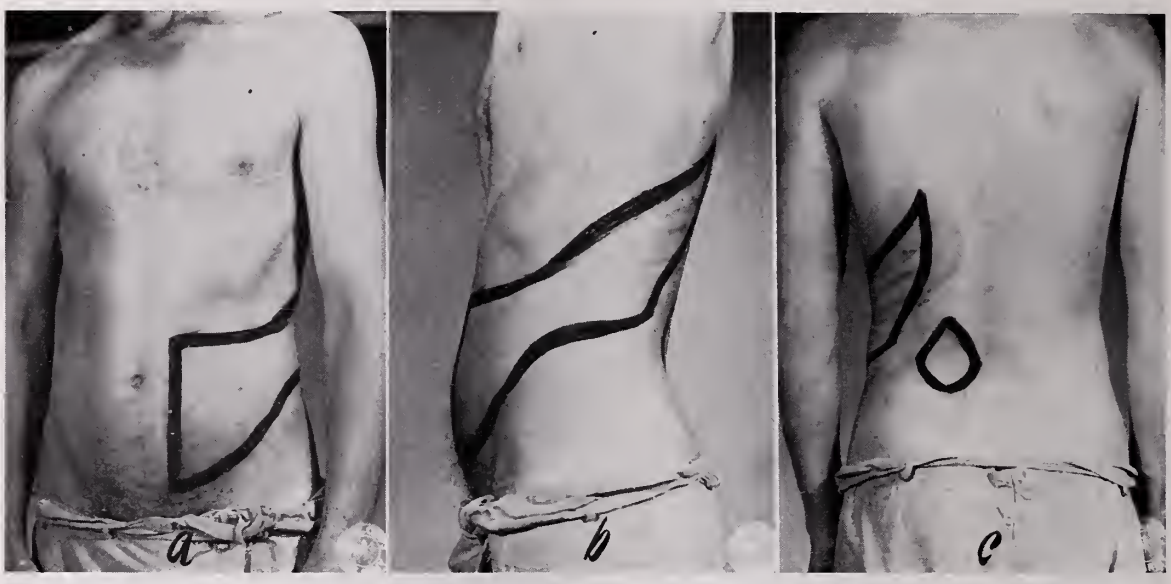

FIG. 3*a*. Thirty-year-old male admitted to the surgical ward with a diagnosis of diverticulitis, temperature 103°, acute upper respiratory infection, negative barium enema. Complete, lasting relief following a block of the segmental nerves supplying the area of hyperesthesia. Black lines inclose the area of hyperesthesia.

c. Posterior view of the patient shown in FIG. 3*a*, showing the posterior extension of hyperesthesia. The oval area is over the sacro-iliac articulation and is also supplied by lumbar 1 segmental nerve.

SUMMARY

1. One thousand consecutive cases of acute appendicitis are reported without mortality.

2. Two phases exist in the clinical progression of an acute appendicitis. These phases are characterized by: (1) generalized abdominal pain with the signs of hyperperistalsis; (2) localized pain associated with the development of the inflammatory process.

3. A method for examining the abdomen with special reference to the differentiation of parietal and visceral pain is described.

4. The association of visceral and parietal pain is emphasized.

5. A plea for more painstaking preoperative study is made.

Observation of the questionable case on an hourly basis is not dangerous. A decrease in the fear of appendicitis, associated with the

improvement in prognosis has made this possible. The accuracy of the diagnosis of appendicitis can be much improved.

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ABSTRACT OF DISCUSSION

Dr. J. Peyton Barnes, Houston: The surgical staff of Brooke General Hospital is to be congratulated on a record of 1500 consecutive appendectomies without a death. This record proves conclusively that appendectomy, properly performed by competent surgeons, carries a very low mortality.

All the tests to insure a good diagnosis have been presented, and this is of great value. The author comments on the fact that 3000 cases were observed in the hospital, but only 1500 patients were operated on, the remainder recovering without operation. Their conservatism is commendable, but it would be interesting to follow the unoperated 1500 for two years and see how many have a recurrence. My own belief is that where one attack has occurred, another follows later, and after one or more attacks appendectomy is justified.

No one dies from acute appendicitis, but only from appendicitis peritonitis. The record of 1,500 patients operated on without a death proves the safety of the operation in trained hands. But 17,000 deaths occur annually in the United States from appendicitis peritonitis. In these cases the infection got outside the appendix before the appendix was removed.

We must never forget that appendicitis is a most treacherous disease, and rupture may occur in apparently very mild cases. It is most dangerous in infants and elderly people. Cases that start violently, with marked cramps and vomiting probably have the obstructive form, with the appendix in contact with ileum or its mesentery; when gas and gurgling in the cecum with slightly rigidity are noted, probably a rectrocecal position is present. Where the history is typical, and yet no rigidity, gas or gurgling are present, a pelvic appendix is suspected.

Colonel Fisher has made a fine contribution to the program of the Section, and the record of 1500 appendectomies reported without a death sets an example for us all.

SURGICAL CLOSURE OF THE PATENT DUCTUS ARTERIOSUS

J. W. NIXON, M. D.
SAN ANTONIO, TEXAS

Since the epochal operation of Gross and Hubbard[15] in 1939, when a patent ductus arteriosus was successfully ligated for the first time, increased attention has been given to the surgical treatment of patent ductus arteriosus in America. The field has been even further extended from that of a non-infected case to include surgical cure of cases of subacute "streptococcus viridans" endarteritis associated with patent ductus arteriosus. More recently additional cases of patent ductus arteriosus with other congenital heart disturbances which have been successfully treated surgically have been reported.[10, 20, 18]

In fetal life the ductus arteriosus serves the important function of shunting blood from the pulmonic artery to the aorta, thus by-passing the lungs. Incomplete expansion of the lungs produces a high resistance in the pulmonary vascular bed. When the child is born, and the lungs expand, the peripheral pulmonary resistance to blood flow is lowered. Pressure in the aorta is then higher than pressure in the pulmonary artery. The ductus normally closes and all the blood in the pulmonary artery passes through the lungs to be aerated. If the ductus arteriosus fails to close, a reversal of the flow takes place, and blood passes from the aorta to the pulmonary artery through the ductus. The patient then possesses what is essentially an arteriovenous aneurysm.

There is considerable difference of opinion as to the time a patent ductus closes under normal conditions. According to Christie,[6] in a study of routine autopsy specimens from infants, at eight months, only 2 per cent of the ducts remained open. Gross[14] sets an arbitrary time limit of one year, believing that an open ductus after that time should be regarded as abnormal. In discussing the etiology of a patent ductus arteriosus, Gross points out three interesting possibilities to be considered. Of these, the most important is the position and direction of the vessel. The ductus usually enters the aorta at an acute angle, and as the acuteness of the angle decreases, the ductus becomes more and more exposed to intra-aortic pressure. If the angle becomes a right, or even an obtuse angle, the force of intra-aortic pressure can readily be exerted to maintain patency of the lumen of the ductus. Gross has repeatedly observed this deviation from the usual acute angle in his operative experience. The second possibilty is a defect in the elastic fiber of the

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media, decreasing the contractibility of the ductus. A third possibility is a deficient neurovascular tonus. Gross points out that the discussion of these possibilities does not apply to cases in which another congenital defect acts to maintain an open ductus arteriosus as a compensatory mechanism.

Maude Abbott,[2] in a series of 1,000 autopsies, has shown that the patent ductus arteriosus may be accompanied by other congenital abnormalities; consequently, these pathological combinations must be taken into consideration in the differential diagnosis of patent ductus arteriosus. On the other hand, it must be remembered that patent ductus arteriosus can, and does, exist as a single cardiac anomaly; and most such cases present sufficient hazards that operation is not only a justifiable procedure, but is definitely indicated.

Eppinger and Burwell,[7] with Gross,[8] studied the effects of the patent ductus on the heart and circulation before and after ligation of the ductus. It was observed that the blood flow is from the aorta to the pulmonary artery in the presence of a patent ductus. No flow takes place from the pulmonary artery to the aorta, and hence the patient is not cyanotic. It was estimated that the shunt diverted from 46 to 75 per cent of all blood pumped into the aorta by the left ventricle. The left ventricle was found to expel two to four times the volume of blood expelled by the right ventricle, which was obviously an increase to compensate for loss of blood in the periphery. If compensation is incomplete, there may be a diminution of blood flow to the periphery. These studies clearly show the tremendous strain a patent ductus arteriosus imposes upon the heart, which explains the frequent occurrence of cardiac decompensation and circulatory failure among patients having this lesion.

The hazards of a patent ductus arteriosus are further demonstrated by studies of the life expectancy of such patients. In 92 cases cited by Maude Abbott,[3] the mean age of death was 24 years. However, the mean age in her series is somewhat confusing since 20 of the patients cited died in infancy. A review of 80 cases, in which all patients were over 3 years of age at time of death and each diagnosis was proved by autopsy, was made by Jones, Dolley, and Bullock.[17] They presented the following statistics:

By 14 years of age, 14 per cent died of their heart lesion.
By 30 years, 50 per cent died of their heart lesion.
By 41 years of age, 71 per cent died of their heart lesion.

An analysis of the causes of death in these cases revealed:

18 to 23 per cent died of congestive heart failure.
5 to 6 per cent died of rupture of the ductus or left ventricular failure.
42 to 53 per cent died of bacterial endocarditis.
4 to 5 per cent died of an associated cause of death in which the cardiac state was contributory.

Both Gross[11] and Maude Abbott[3, 1] have pointed out the alarming fact that the incidence of subacute endocarditis is in the neighborhood of 25 per cent. Aside from cardiac decompensation, other possible complications are: bacterial endocarditis or endarteritis, aneurysmal dilatation of the ductus, rupture of the ductus, and possible retrograde thrombosis with release of emboli to various parts of the body. In one of my cases an aneurysm of the pulmonary artery associated with a patent ductus arteriosus was encountered. Thus it is apparent the surgeon must approach this surgical entity with the realization that he may encounter numerous abnormalities other than a patent ductus arteriosus alone.

DIAGNOSIS

The patent ductus arteriosus is seldom recognized during the first few years of life. Usually, however, when the child progresses to the period of physical activities, symptoms of dyspnea, increased heart rate, or a pounding heart may develop. As the age of the patient advances, shortness of breath and pounding of the heart on slight exertion is a rather persistent complaint and may be the first symptom to lead to the recognition of a patent ductus. It is important to realize that cyanosis is not present except as a terminal symptom of impending death. The patient may present evidence of being undernourished, but if a ductus remains patent until early adult life, the patient is likely to become more normally developed. Perhaps the most determining diagnostic factor is the so-called "machine" murmur to be found at the pulmonic area in the second or third interspace to the left of the sternum. This murmur is transmitted to the left axilla and can be heard, in many instances, toward the back. Although a thrill does not exist in every case, it is usually present, and its existence is to be considered one of the chief diagnostic points. In one of my cases, no thrill could be felt through the chest wall, but it was readily palpable when the thorax has been opened. Patients complain of a humming sound in the chest and an annoying thumping in the ears upon lying down. There are some extreme cases where the murmur may be heard by individuals standing near the patient. The mother of one of our patients stated that the murmur of her child was so pronounced it was audible to her when she slept with the child. The blood pressure is another sign of importance.

The systolic level is normal or slightly lowered, while the diastolic level is greatly decreased. The Corrigan pulse and the pistol shot sounds may be detected in the peripheral arteries when the pulse pressure is high. Percussion shows a heart of normal or slightly increased size. The electrocardiogram, as a rule, is not diagnostic.

Roentgenological studies reveal a large pulmonary conus and may further reveal congestion of the opposite lung in the region of the hilus, although neither of these signs is persistent during early childhood. The x-ray findings serve as important contributory evidence rather than as a basis for diagnosis.

SELECTION OF CASES

Gross[13] has stated that the various hazards are sufficiently serious and appear with great enough frequency to make surgical closure of a patent ductus arteriosus advisable, provided this can be accomplished with a reasonably low mortality rate. There are, of course, some cases where contraindications to operation exist. Touroff[26] mentions two absolute operative contraindications. First, in those cases where there is incontrovertible evidence that the open ductus is present as a compensatory mechanism for some other coexisting, congenital cardiovascular anomaly, ductal ligation quickly leads to circulatory embarrassment and death. Second, where there is strong evidence that vegetations already have spread to the endocardium, aorta, or to the mitral or aortic valves, ductal ligation is of no value for the reason that new lesions continue to feed infective material directly into the peripheral blood stream. However, he emphasizes that the presence of an infection of long duration does not necessarily constitute a contraindication to operation unless vegetations already have spread to the above mentioned areas.

OPERATION

The operative technique of most surgeons is similar to that employed by Gross,[15, 14, 11, 12] except in certain details. The incision begins at the lateral border of the sternum and extends laterally for a distance of five to six inches over the second interspace. Munro,[19] in 1907, first suggested the possibility of ligating a patent ductus arteriosus through a sternal approach. Although Gross cuts the second and third cartilages to obtain better exposure, I have found this unnecessary. It is possible to obtain adequate exposure without cutting a rib by placing a rib spreader between the second and third ribs. This shortens the operative time and leaves the patient more comfortable postoperatively. Certain anatomical relations are to be observed in identifying the duct. A sentinel lymph node lies at the superior border of the base of the lung; and from this lymph node the incision is extended upward through the mediastinal pleura for a distance of about two and one-half inches, parallel to, and one-half inch posterior to the phrenic nerve. Upon opening the mediastinal pleura, the aorta, which has a tough wall, can be easily and safely identified by rather firm dissection. In contrast to the aorta, it is well to remember the ductus has a thin wall and must be freed with great care. In fact, several cases have been reported where the ductus was torn during operation with fatal results.[26, 9, 25] The vagus nerve is identified and traced to its recurrent laryngeal branch, which courses medially under the ductus. The area of maximum thrill, which lies directly over the ductus, is then sought by palpation with the tip of the index finger. By following these steps, it is possible to quickly and confidently identify the ductus arteriosus except in cases where other anomalies are present. Such an exceptional case came under my observation in the form of a patent ductus arteriosus associated with a large aneurysm of the pulmonary artery. In this patient, either because of the expansile pressure of the aneurysm or because of the congenital anomaly, the pericardium, instead of being attached to the pulmonary artery as is normally the case, was attached to the inferior surface of the aorta, thus making it necessary to open the pericardium in order to expose the ductus.

Some authors attach considerable importance to the material used in ligation of the duct. The danger of cutting through the ductus if the ligature is tied too tightly is also pointed out. Mont Reid[24] advocated the umbilical tape ligature of woven silk, 5/32 inch in breadth. This has also been suggested by Jones and Dolley.[17] Gross[13] has supplemented the use of woven silk ligature with the use of a ligature of cellophane, weight 300, of the unsurfaced type, placed over the silk ligatures. Herman Pearse,[23] of Rochester, New York, has found through experimental work that cellophane increases the proliferation of fibrous tissue. Sclerosing fluid injected into a short segment of the ductus isolated by two ligatures has been employed by Gross.[11] More recently Gross[13] has reported a series of 14 cases in which complete surgical division of the patent ductus arteriosus was successfully achieved. Gross points out that he believes this technique is more desirable than ligation, providing conditions indicate that complete division of the vessel can be accomplished, because it insures prompt and complete closure of the ductus. Touroff[26] has stated that in his experience he had found ductal ligation to be similarly effective to ductal divi-

sion. My experience with ligation has been similar to that of Touroff. I have had excellent results and no complications by tightly, doubly ligating the duct with No. 8 braided silk.

Following the ligation of the duct, the machine murmur is converted to one of a normal heart sound. However, some cases have been reported in which a residual murmur can be heard.[13, 5] There is an immediate cessation of the thrill and the violent action of the heart is toned down, thus indicating the heart was carrying an additional load in the presence of a patent ductus arteriosus. A rapid improvement in weight and good health is noticeable in the undernourished and underdeveloped. The diastolic blood pressure, which is low in these cases, is immediately elevated. We have noticed an improvement in the patient's morale, perhaps partly caused by a sense of security or satisfaction in having undergone a successful operation upon the heart.

Dramatic results may be obtained in cases of subacute streptococcus endarteritis associated with a patent ductus arteriosus. Since the mortality rate of approximately 100 per cent for untreated cases with associated endarteritis has been reduced to less than 50 per cent by ligation, as pointed out by Burch,[5] it would seem that surgical treatment should be urged in such cases. In a successful case reported previously,[22] the patient had been confined to her bed with an elevation of temperature and a repeatedly positive blood culture. A blood specimen taken twenty-two minutes after the duct was ligated showed a negative culture. Other similar cases have been reported by Touroff,[26] Harrington,[16] and Shapiro and Keys.[25] No clear explanation has been advanced as to why the blood culture taken shortly after the operation was sterile.

Aside from the usual possible complication of any thoracotomy, such as sepsis, pneumonia, and postoperative thrombosis, others which may occur during the ligation of a patent ductus arteriosus are: inability to identify the duct; injury to the duct during ligation; incomplete occlusion or perforation of the ductus by ligature, and injury to the recurrent laryngeal nerve.

In regard to the last complication, as is generally known, injury to the recurrent laryngeal nerve during a thyroidectomy results in only a temporary voice change. This is equally true in case the nerve is injured during the ligation of a patent duct. In my case in which the ductus lay within the pericardium, the recurrent laryngeal nerve was injured during the rather extensive dissection which was carried out in an effort to locate the ductus. The patient developed a hoarse voice postoperatively, but within five weeks her voice had become normal. During the first thirty-six hours postoperatively the patient is likely to develop sufficient pleural effusion to produce a certain degree of respiratory embarrassment. This is easily relieved by the aspirating needle. That large amounts of fluid can collect in the chest is evidenced by the fact that in one of my patients, a child of 9 years of age, 720 cc. of fluid was aspirated on the first postoperative day.

COMMENT

Judging from my own experience, and from a review of cases reported in the literature, it is evident that surgical closure of patent ductus arteriosus can be accepted as a successful means of treatment in a rather high percentage of cases. By this operation, a certain number of patients who heretofore had no prospect of being relieved of this lesion now have hopes of a complete cure or improvement. The definite increase in the percentage of successful cases is encouraging, to say the least. Although the length of time since most of these operations have been performed is too short to offer conclusive evidence as to the degree of permanence of the cure, the results are sufficiently beneficial to warrant continued interest in surgical treatment of such cases.

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ABSTRACT OF DISCUSSION

Lt. Col. H. C. Fisher, M. C., Fort Sam Houston: Dr. Nixon is to be congratulated on a very complete discussion of this problem and upon the successful cases which he has reported. Of these, the most interesting one to me is that of a patent ductus arteriosus associated with an aneurysm of the pulmonary artery. Although dilatation of the pulmonary conus is a common associated finding, aneurysm of the pulmonary artery is rarely seen. One would expect it to occur more commonly. In 1924, Moench reported the rupture of an aneurysm of the pulmonary artery associated with a patent ductus arteriosus.

Special emphasis should be placed on the correct diagnosis of the uncomplicated patent ductus. Many of the reported and unreported cases subjected to operation have not been correctly diagnosed preoperatively. This is a difficult problem; the danger of course lies in ligating a patent ductus which is serving as a compensatory channel, particularly its association with a stenosis of the pulmonary artery. Of 242 postmortem cases of patent ductus arteriosus reported by Maude Abbott, only 92 were uncomplicated.

Vascular surgery is still in its infancy. Further valuable information will be gained in attacking these problems surgically.

I should like to ask Dr. Nixon one question: Providing the diagnosis is made in the early years of life, what is the optimum time for ligating the patent ductus arteriosus?

Dr. A. O. Singleton, Galveston: The results of Dr. Nixon's cases of duct ligation, and also with other surgeons, is gratifying to the profession. The realization that we now have a remedy for a condition which was considered incurable a few years ago is appreciated by all. We have recently operated on a patient with a greatly dilated pulmonary artery, and also enlarged aricular portion of the heart, which on first appearance was through to be an aneurysm. It is possible that the aneurysm in Dr. Nixon's case could have been of the same type. The demonstration of the recorded heart sounds is very interesting and instructive.

Dr. R. A. Miller, San Antonio: If there was ever a time that the specialty of anesthesia receives its just credit it is when the surgeon considers opening the thorax to operate on the heart. The cases presented by Dr. Nixon were all poor surgical risks, generally speaking, in addition to their damaged hearts. The anesthesia was conducted with cyclopropane and oxygen, using an intratracheal tube and a closed system with a to-and-fro absorber; positive pressure was maintained and at times apnea and controlled respiration was used. Although I am familiar with all of the cases I administered only the first two anesthetics; Dr. Graham B. Ladd was the anesthetist in the last case presented.

The second case was of special interest to me in that one year after the cardiac operation I gave the patient an anesthetic for an appendectomy performed by Dr. Omer Roan. The only remarkable thing about her heart during the operation was the fact that her rate went to 160 about fifteen minutes after the operation, but it soon returned to normal and she had an uneventful recovery.

All chest surgery has been made possible only since the anesthetist has been able to perfect a technique for positive pressure.

It has been very gratifying to see these spectacular cases and see their wonderful recovery. Dr. Nixon is to be highly commended for his courage in entering this new field and for his successful results in these cases.

We in anesthesia appreciate his coöperation and his recognition of the role anesthesia plays in these difficult cases.

Dr. Nixon (closing): In reply to Lt. Col. Fisher's question concerning the optimum time for ligating a patent ductus arteriosus, providing the diagnosis is made in early life, I feel that this ligation should be done at about the age of six to eight years. At this age the child usually enters school and he will find that he becomes dyspneic if he takes part in athletics or plays strenuously. However, if evidence of a subacute endarteritis presents itself at an earlier age, the ligation should be done at once.

ARMY MALARIA CONTROL THREEFOLD PROBLEM

The army has made great progress in the control of its No. 1 disease hazard, malaria, according to Brigadier General James S. Simmons, U. S. A., Chief of the Preventive Medicine Service, who described army methods of malaria control to The Military Surgeons meeting in New York City this month. In the army, the problem has two aspects, General Simmons said—control in base areas and protection of troops in combat. The first is primarily mosquito control, and specially trained personnel are required to produce effective results. The malaria control organization in the Army Medical Department includes medical officers trained in malariology, and small survey and control units headed by parasitologists, entomologists and sanitary engineers.

The second aspects—protection of troops in forward and combat areas—depends upon individual measures of protection in addition to mosquito control, according to General Simmons, and strict malaria discipline must be established and enforced. Soldiers must be drilled in the use of repellents, sleeping nets, protective clothing and insecticide sprays in the same way they are trained to use combat weapons.

Concerning the third aspect—the possible spread of malaria in this country by returning soldiers—General Simmons said that members of the armed forces who have had malaria will be given sufficient treatment to render them free from demonstrable parasites before they are discharged. In addition, men who have had malaria or served in malarial regions are advised to seek prompt medical attention and have a blood smear for malarial parasites in cases of illness with fever.

However, he added, prevention of malaria in this country, as elsewhere, depends essentially upon the control of the malaria carrying mosquito.—*News Notes*, S. G. O., Nov. 16, 1944.

A STUDY OF RECTAL AND AXILLARY TEMPERATURES IN INFANTS

J. P. GIBSON, M. D.
ABILENE, TEXAS

The object of this study is to determine the answers to the following questions:

1. How quickly may an accurate rectal temperature be taken?
2. How quickly may an accurate axillary temperature be taken?
3. What relation is there between rectal and axillary temperatures?
4. How much reliance can be placed on axillary temperature readings?

Probably no procedure is as universally employed in the examination of patients as the taking of temperatures. It is of practical importance that this be done accurately, and that an interpretation of temperature readings taken in various ways also be accurate.

Physicians and nurses employ the rectal method of taking temperatures in infants because it is the most accurate method. In these times of increased burdens, just how quickly may a rectal temperature be taken and yet be accurate?

Many mothers have a marked aversion to taking rectal temperatures in their children, so will take an axillary temperature and report it to the physician. What interpretation can be placed on an axillary temperature? According to the authors of pediatric textbooks, "The axillary temperature is thoroughly misleading and should never be depended upon" (Kerley); "Temperatures taken in the axilla cannot be relied on" (Dunn); "Axillary temperatures are untrustworthy" (Holt and Howland). But mothers know little and care less what writers of textbooks have said, and they will continue to take axillary temperatures. As undesirable as this practice may be, we face it in everyday life and must deal with it.

In seeking information on the relation of rectal to axillary temperatures no studies could be found correlating these two temperatures, either in the library of the American Medical Association, or the library of the State Medical Association of Texas.

The study reported here was made on 130 infants and children, of which 55 were females and 75 males. They were divided into age groups as follows: newborns (ages 1 day to 2 weeks), 30; 2 weeks to 3 months, 35; 4 months to 12 months, 32; 13 months to 6 years, 33.

Of the 130 patients, 26 had a temperature of 100 F. or more, while 104 had temperatures of less than 100 F.

Thermometers were used that had recently been calibrated* and found completely accurate. The thermometers were always thoroughly shaken down and one placed two inches within the rectum and another in the axilla while the arm was held close to the body. Readings were taken of both thermometers (without removing them) at one minute intervals for six minutes. For the sake of accuracy all of the readings on the 130 children were done personally except 20 newborns, who had their temperatures recorded by a nurse who was specially instructed in the procedure. A typical temperature record of one child is given in table 1.

TABLE 1.—*Temperature Record of a Girl Baby, Age 1 Month.*

Minutes	1 min.	2 min.	3 min.	4 min.	5 min.	6 min.
Rectal	98.3	98.6	98.8	99.0	99.0	99.2
Axillary	97.2	98.0	98.2	98.5	98.6	98.8

From the above record, the increase in temperature minute by minute was recorded, as follows:

Minutes	1–2	2–3	3–4	4–5	5–6
Rectal	.3	.2	.2	.0	.2
Axillary	.8	.2	.3	.1	.2

By keeping the records in their age groups as previously outlined, an average of the temperature reaction could be studied, as shown in table 2.

TABLE 2.—*Average Increase of Rectal Temperatures Minute-by-Minute for Six Minutes.*

Minutes	1–2	2–3	3–4	4–5	5–6
Newborns	.06	.07	.02	.02	.02
2 wks.–3 mo.	.45	.16	.07	.03	.02
4 mo.–12 mo.	.43	.21	.08	.08	.07
13 mo.–6 yr.	.30	.10	.06	.05	.03
Average	.31	.16	.05	.04	.03
					.28

From the data in table 2 it will be noted that the only rectal temperature accurate at one minute is the one for the newborns. After one minute the temperature will increase only .19 degree if the thermometer is left in place for five more minutes. For the other age groups it takes two minutes to get an accurate reading. On an average, a two-minute reading will give a temperature that is accurate. After two minutes, the temperature will increase only .28 degree if taken for four more minutes.

A similar study of the axillary temperatures shows a considerable increase of temperature up to three minutes, but after that the increase tapers sharply down.

A three-minute axillary temperature will record the greatest increase (1.12 degrees) while to leave the thermometer in place three more minutes would raise the reading only about half a degree.

From these studies, we can select for practical purposes: (1) a two-minute rectal tem-

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*AUTHOR'S NOTE.—Thermometers were calibrated by Becton, Dickinson and Co., Rutherford, N. J.

perature (accurate within 0.3 degrees); (2) a three-minute axillary temperature (accurate within 0.5 degree).

Now we come to a very interesting comparison of the two-minute rectal tempera-

TABLE 3.—*Average Increase of Axillary Temperatures Minute-by-Minute for Six Minutes.*

Minutes	1–2	2–3	3–4	4–5	5–6
Newborns	.33	.17	.13	.07	.05
2 wks.–3 mo.	.57	.40	.25	.15	.12
4 mo.–12 mo.	1.00	.62	.30	.16	.16
13 mo.–6 yr.	.87	.53	.34	.19	.07
Average	.69	.43	.25	.14	.10
	1.12		.49		

tures with the three-minute axillary temperatures in the 130 children, to see if there is any constant relationship.

It will be seen that the rectal and axillary temperature readings are very close in the newborn group, but diverge gradually as the ages increase. The difference is usually within two degrees, except in the older children. If one will keep the age group pattern in mind, axillary temperatures may be inter-

TABLE 4.—*Difference Between Two-Minute Rectal Temperatures and Three-Minute Axillary Temperatures.*

	1 degree or less %	1½ degrees or less %	2 degrees or less %	2½ degrees or less %	3 degrees or less %
Newborns	93	100			
2 wks.–3 mo.	74	85	100		
4 mo.–12 mo.	50	72	87	94	100
13 mo.–6 yr.	21	48	78	91	97

preted with a fair degree of accuracy. The relationship may be summed up in the following statements:

In nine-tenths of the newborns, the axillary temperature is within 1 degree of the rectal temperature.

In three-fourths of young infants, the axillary temperature is within 1 degree of the rectal temperature.

In three-fourths of older infants, the axillary temperature is within 1.5 degrees of the rectal temperature.

In three-fourths of children (over 1 year) the axillary temperature is within 2 degrees of the rectal temperature.

Incidentally, the average two-minute rectal temperature of the well children showed no significant variation as to sex, but a slight increase in temperature was exhibited in the older groups.

TABLE 5.—*Average Two-Minute Rectal Temperatures.*

	Newborns	2 wks.–3 mo.	4 mo.–12 mo.	13 mo.–6 yr.
Male	98.8	98.9	99.1	99.4
Female	98.6	98.8	99.2	99.2

CONCLUSIONS

1. A reasonably accurate rectal temperature may be taken in two minutes.

2. A reasonably accurate axillary temperature may be taken in three minutes.

3. Axillary temperature approaches rectal temperature very closely in early infancy.

4. Axillary temperature gradually diverges from rectal temperature as age increases but rarely more than two degrees except in older children.

ABSTRACT OF DISCUSSION

Dr. John G. Young, Dallas: Dr. Gibson has given a good, worth-while paper based on a very simple investigation and he has confined his paper to one quite simple problem.

Temperatures taken at home by the mother can be better interpreted after knowing of Dr. Gibson's work. It is fortunate that our diagnosis and management does not depend on exact temperature. I was interested in the rather marked variation in the individual patients. In noting that the rectal temperature continued to rise even after 5 minutes, I wonder if this would continue if the period were greatly prolonged.

In his paper, Dr. Gibson did not make clear to me how he arrived at the second decimal point figures. Were they attained by striking averages? The conclusions reached are sound from the work done. From these figures we should perhaps be forced to change our statement that rectal and axillary temperatures average a difference of about 2 degrees; for nine-tenths of the young infants the variation was only 1 degree, for three-fourths of older infants the variation was about 1.5 degrees, while only those over 1 year of age gave 2 degrees difference that we have been thinking of as existing between axillary and rectal temperature.

I think this type of clinical investigation of our every day problems is valuable.

THE PREVENTION OF MEASLES

Human immune serum globulin, one of the fractions or components of blood plasma, is the material of choice in the prevention and modification of measles, Morris Greenberg, M. D.; Samuel Frant, M. D., and David D. Rutstein, M.D., New York, report in *The Journal of the American Medical Association* for December 9. Their report is based on a study of the comparative effectiveness of human immune serum globulin, which they call gamma globulin, and of placental globulin, obtained from the placenta. The use of placental globulin in the prophylaxis of measles was first introduced in 1933. Gamma globulin, one of the discoveries of our war research program, was used exclusively by our armed forces until last summer when a sufficient supply became available for its distribution to the public.

The three investigators say that gamma globulin was administered to 814 children between the ages of 6 months through 6 years who were in contact in their households with others who had measles. None developed regular measles, 78.7 per cent were completely protected and 21.3 per cent had modified measles. Among the latter 92 per cent were mild and 8 per cent moderate. There was a tendency for the effectiveness to decrease with age. Untoward reactions were rare.

Placental globulin was administered to 90 similar contacts. Severe measles occurred in 23.3 per cent, 38.9 per cent were completely protected and 37.7 per cent had modified measles. Among the latter 70 per cent were mild and 30 per cent were moderate. Reactions occurred in 41 per cent of those injected.

In a group of 65 contacts who received no prophylaxis, 83 per cent developed measles, 31 per cent being severe, 12 moderate and 10 mild.

The three physicians point out that convalescent serum for measles is not as readily available and the comparatively large doses which are necessary make its use impractical.

APPLICATIONS OF THE CHICK EMBRYO TO VIRUS AND RICKETTSIAL DISEASE PROBLEMS

MAJOR MORRIS POLLARD, V. C.

The role of the developing chick embryo is continuing to assume more and more usefulness in the field of virus and rickettsial diseases. While intended originally as a means for demonstrating the presence of invisible pathogens,[2] this medium is now being utilized for the preparation of the vaccines and diagnostic antigens of many of these pathogenic agents (Chart 1). My purpose in this paper is to point out the facility with which the chick embryo may be added to the armamentarium of many laboratories, and to clarify some of the confusion incident to its applications.

Viruses flourish in immature, undeveloped, actively growing tissues such as those found in the developing chick embryo. Mammalian fetuses have been used successfully in the propagation of viruses; however, these are neither as easily manipulated nor as accessible as the developing chick embryo. It is well recognized that one of the prominent critera of those agents called viruses is their failure to grow in the absence of living cells. To date, "in vitro" cultivation of viruses in the presence of living cells has met with some degree of success, and with complete failure in the absence of cellular material. Some agents require special incubation temperatures for maximum virus production, which is practical with the chick embryo. Latent exotic infections may be provoked in mammalian species with the introduction of a new disease agent—a factor that can be reasonably discounted with the chick embryo. The susceptibility of chick embryos is reasonably constant, thus avoiding pitfalls encountered with special strains of laboratory animals. The disease agent can be kept well isolated with moderate precautions and intercurrent infections are quite infrequent.

While the chicken egg is the one most commonly employed, eggs from other species of birds (turkey, duck and pigeon) have been used successfully. Fertile chicken eggs may be purchased from hatcheries and incubated at 38.5 C. until old enough to inoculate with the disease agent. In the absence of a regular egg incubator, the temperature of a bacteriological incubator may be adjusted and a pan of water placed on the lower shelf to raise the humidity. The ventilator at the top should provide maximum aeration. The eggs should be arranged on the shelves in egg boxes, with the blunt end of the egg topmost; and they should be turned twice daily through a 90 angle to prevent adhesion of the membranes. On the other hand, incubated eggs may be purchased from the hatchery all ready for inoculation.

When it is desired to inoculate the egg it is examined for viability by transillumination (candling). A microscope lamp may be used for this purpose. A dead embryo is indicated by the absence of a vascular bed; a living one by the presence of blood vessels, at first near the air sac at the blunt end, and spreading down and around the egg as it continues to develop. The veins of this vascular bed appear to converge toward the blunt end; the arteries toward the pointed end of the egg. White eggs are preferred to brown ones because they are easier to candle. The point of inoculation is marked and the shell is ground through at this point without injuring the egg shell membrane. Grinding may be performed either by electric motor and dental burr or by manual scratching with a sharp instrument.

There are various routes for inoculating the egg: direct inoculation of the embryo, the chorio-allantoic membrane or cavity, the yolk sac and intravenously.

CHART 1.

Disease	Age	Route	Incubation	Temperature	Harvest	Use
Lymphogranuloma venereum	6-7 days	Y. S.	3-6 days	37° C.	Y. S.	Frei and C-F antigen
Psittacosis	ibid					C-F antigen
Meningo-pneumonitis	ibid					C-F antigen
Influenza	11 days	C. A.	48 hours	35-37° C.	Allantoic fluid	C-F antigen Hirst test Vaccine
Yellow fever	7 days	C. A.	3-4 days	37° C.	Embryo	Vaccine
Eq. Encephalomyelitis	9-11 days	C. A.	1-2 days	37° C.	Embryo	Vaccine
Vaccinia	10 days	C. A. M.	3 days	37° C.	C. A. M.	Vaccine
Rabies	8 days	I. C.	5-6 days	35-36° C.	Embryo	Vaccine
Measles	8-10 days	C. A. M.	7 days	37° C.	C. A. M.	Vaccine
Typhus	5-7 days	Y. S.	3-5 days	37° C.	Y. S.	Antigen Vaccine
Spotted fever	5-7 days	Y. S.	3-5 days	35° C.	Y. S.	Antigen Vaccine
Q fever	5-7 days	Y. S.	3-5 days	35° C.	Y. S.	Antigen Vaccine

LEGEND

Y. S.—Yolk Sac
C. F.—Complement fixing
I. C.—Intra-cerebral
C. A.—Chorio-allantoic cavity
C. A. M.—Chorio-allantoic membrane

Read before the Section on Clinical Pathology, State Medical Association of Texas, San Antonio, May 3, 1944.

1. Yolk sac technique.—From 5 to 7 day old embryos are used. A hole is drilled over the air sac, in all cases leaving the egg shell membrane intact. The inoculum (0.1 to 1.0 cc.) is introduced directly into the yolk sac *via* a 1¼ inch 20 gauge needle by plunging the needle vertically down into the egg. (Fig. 1 *a*).

2. Inoculation into the chorio-allantoic sac.—A small hole is drilled through the shell over the air sac and another into the side of the 10 to 12 day old egg. The egg shell membrane over the air sac is punctured to permit compression of the air sac when the inoculum is introduced into the side opening. The inoculum is introduced into the extra-embryonic fluids with a syringe and 27 gauge needle. All openings are sealed either with paraffin or collodion. (Fig. 1 *b*).

3. Intravenous inoculation of 11 to 12 day old embryo.—A large vein is located and marked, preferably one just prior to formation of the umbilical vein. The shell is ground off just over this vein and the shell removed. From 2 to 4 minims of warm mineral oil is applied over the egg shell membrane to make it transparent. The inoculum (0.5 to 0.1cc.) is introduced directly into the vein *via* a 27 gauge 1-inch needle in the direction of flow of blood. The egg shell membrane is sealed with collodion. The reverse procedure is possible for collection from the arterial system, or blood smears may be made by similar procedure from a small vein. (Fig. 1 *c*).

4. Chorio-allantoic membrane.—Opening similar to those for method 2 are made, except that the opening over the chorio-allantoic membrane is about 1 cm. square. The egg shell membrane is snapped away from the underlying chorio-allantoic (C-A) membrane and negative pressure applied over the air sac opening. The C A membrane drops down and the egg contents fill the air sac. The inoculum is dropped onto the C-A membrane and the opening is sealed either with a sterile cover slip or paraffin or with scotch tape. (Fig. 2 *a*).

5. For embryo inoculation 10 to 12 day old embryos are used. A hole is drilled directly over the predetermined embryo. A 1¼-inch 26 gauge needle is plunged directly into the body of the embryo, guiding the needle by transillumination. A successful inoculation can be detected by moving the needle while in the egg. If the embryo moves, one is reasonably certain of having hit the embryo. (Fig. 2 *b*).

It should be pointed out that the efficacy of viral vaccines or diagnostic antigens is in proportion to high concentrations of the agent. Thus far, the developing chick embryo has satisfied this requirement for many viruses. Furthermore, maximum antibody response by the host is generally effected only if the disease agent is living; so the development of avirulent living vaccines is the optimum objective. No sensitization by chick embryo vaccines could be detected in many immunized individuals, nor could any evidence of normal chick embryo antibodies be detected by complement fixation.[14] Virus

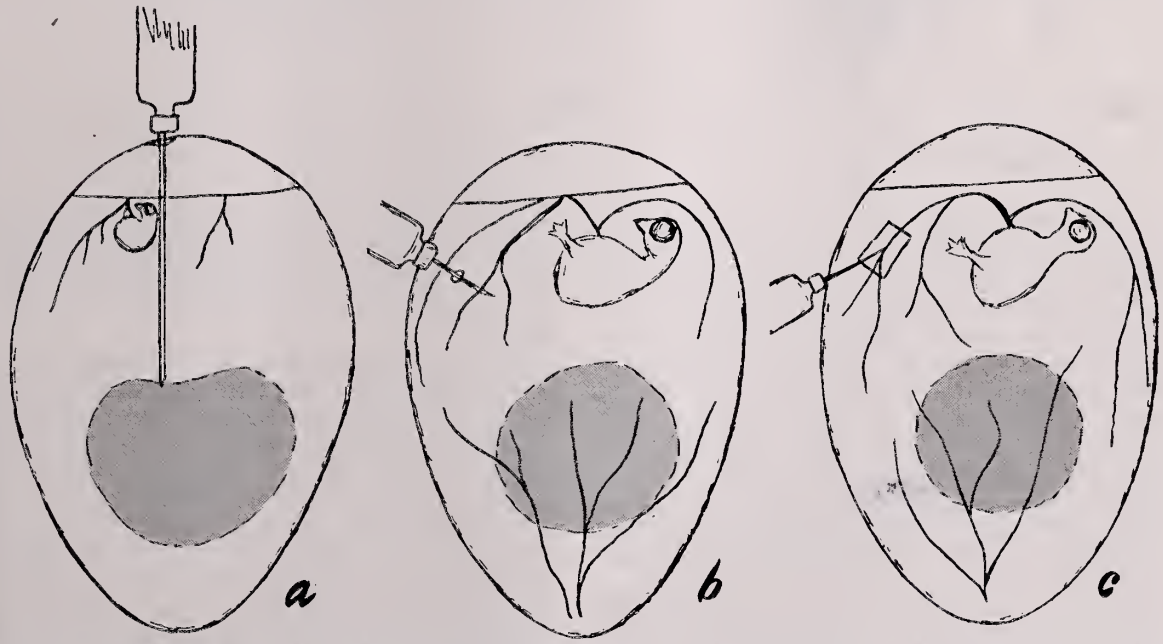

FIG. 1*a*. Diagramatic drawings showing yolk sac inoculation at 5 to 7 days; *b*. choric-allantoic sac, at 10 to 12 days; *c*. showing intravenous inoculation of an 11 to 12-day-old embryo.

infected tissues should be harvested just prior to death of the embryo, since the agents deteriorate rapidly in degenerating tissues.

In the study of the influenza problem, it has been found that the allantoic fluid of inoculated embryos contain high titres of the virus and that this may be used as antigen either for the complement-fixation test or the Hirst test.[8]

The Hirst phenomenon with influenza is the agglutination of chicken red blood cells when the virus is present; the more virus present the greater the degree of agglutination. If specific antibodies are added to the mixture of virus and chicken red blood cells, the agglutination is inhibited. This constitutes the basis for the diagnostic test indicated below.[9]

Stock influenza virus, either Type A or Type B, is propagated by inoculating high dilutions (10^{-4}) into the chorio-allantoic cavity and incubating for forty-eight hours at 35 to 37 C. At this time, the embryos are chilled and blood-free allantoic fluid is collected from these eggs. The infected allantoic fluid is serially diluted tenfold in 0.5 cc. quantities and to each tube 0.5 cc. of 1:100 normal inactivated rabbit serum (56 C. 30 min.) is added. To all tubes, 0.1 cc. of 0.75 per cent washed chicken red blood cells are added and then shook. Type "O" cells or turkey cells may also be used. Incubation at room temperature is then done for one hour, the tubes are shaken and then incubated overnight in the refrigerator. The titre is then read according to the pattern on the bottom of the tube and recorded accordingly. (Fig. 3). The degree of agglutination is determined by the pattern which the cells assume on settling to the bottom of the tube. Negative agglutination is indicated by a compact circle of cells at the bottom of the tube; positive, by the formation of serrated margins. The more serrated the edge, and the less compact the settled cells, the greater the degree of agglutination. In examining a case, early and late serum specimens must be set up simultaneously (0.5 cc. of a 1:100 dilution of inactivated serum per tube). A fourfold difference in agglutination inhibition is diagnostically significant. If the mixtures are shaken after two hours, no agglutination will occur since a dissociation occurs and the virus is set free by the red blood cells.

The stock influenza viruses are so well adapted to avian tissues that their virulence for mammalian tissues has become subdued. It is, therefore, being experimented with as an intranasally administered living vaccine for the control of future epidemics of this disease.[15] Of course, the duration of immunity is very short even with convalescent cases, so that frequent vaccination may be indicated.

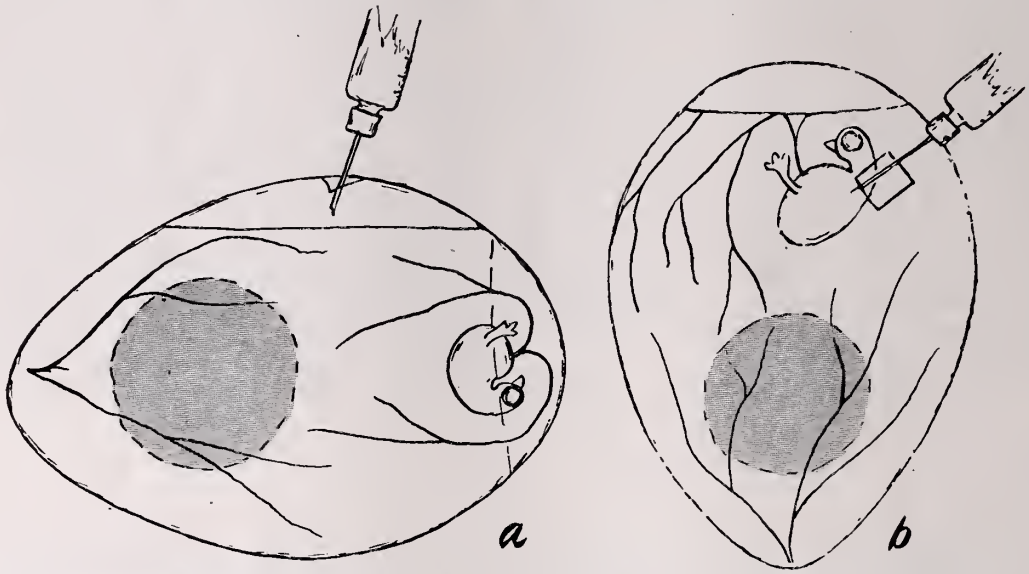

FIG. 2*a*. Diagramatic drawings showing the choric-allantoic membrane inoculation at 11 days; *b*. illustrating the intra-embryonic inoculation at 13 days.

Through the application of bivalent equine encephalomyelitis chick embryo vaccine,[10] the incidence of this disease has been practically nonexistent among Army animals during the past year and has contributed considerably to its reduced incidence among the human population. The virus is so well adapted to growth in the chick embryo[7] that inoculation of infected material into the chorio-allantoic cavity kills the embryo in twenty-four to forty-eight hours. All portions of the egg content contain virus but the greatest con-

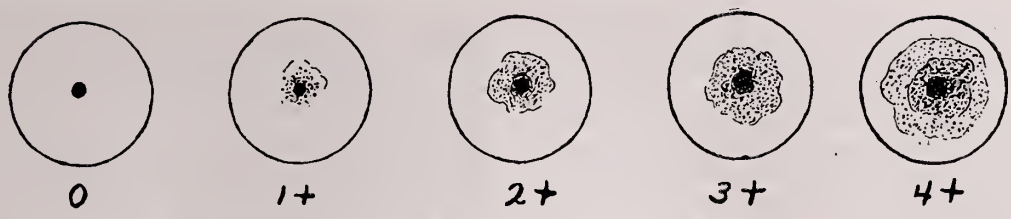

FIG. 3. Schematic drawing of settled red cell agglutination patterns.

centration exists in the embryo proper (as high as 10^{-6}). The embryos are pooled, ground up, formalinized, and, after being checked for nonviability of the virus, they are utilized as an intradermal vaccine. At present the eastern and western strains are propagated and mixed after formalinization to make a bivalent vaccine. The supernatant material from ground-up infected embryos can be used as complement-fixing antigen; however, one cannot yet differentiate the eastern and western strains of the agent by this technique.

An effective living vaccine has been developed with Theiler's 17D strain of yellow fever virus.[6] The embryos are collected three days after inoculation of infected material into the chorio-allantoic sac of seven-day embryos. After comminution and trituration of the embryo, this material is distributed as lyophilized unpreserved vaccine, and is always maintained at dry ice temperature to retain its viability. It has already proven its value in many endemic foci and induces a relatively prolonged state of immunity.

Psittacosis, lymphogranuloma venereum, trachoma, and meningopneumonitis have a common group complement-fixing antigen.[5] These inter-relationships can be demonstrated by the complement fixation test. The lymphogranuloma venereum agent can be propagated successfully in the yolk sacs of 7-day-old embryos from which a high concentration of this agent may be extracted for Frei antigen or the complement-fixing antigens. There are still limitations to the interpretations of the complement fixation serological test; and any positive results should be accepted with some reservations.

In the propagation of rickettsial agents in the yolk sac of chick embryos, the technique is essentially the same for all of them.[3] Tissue emulsions (spleen, liver, or testicular washings) from febrile guinea pigs are inoculated into the yolk sacs of incubating 5 to 7 day old chick embryos. Emulsion of yolk sacs in buffered saline are then transferred, frequently through three or four "blind" passages before visible evidence of the agent is detected. In many instances the agents may be observed outside of the cells of the yolk sac and in massive numbers; in the mammalian species these agents are generally confined to the interior of the cell. When the yolk sacs are rich in rickettsiae, they are emulsified in saline to which 0.4 per cent formalin has been added. The fat is extracted from the killed suspension with ethyl ether (2 extractions)[17] and after the gross particles have settled out the preparation can be used either as complement-fixing antigen or as a prophylactic agent. An alternate method for antigen preparation[1] is to centrifuge the yolk sac emulsion at low speed (1500 rpm. for five minutes) to remove the gross particles, and then centrifuge the supernatant at 4000 rpm. for one hour. The sediment consists principally of rickettsiae which can be resuspended in saline to any density desired.

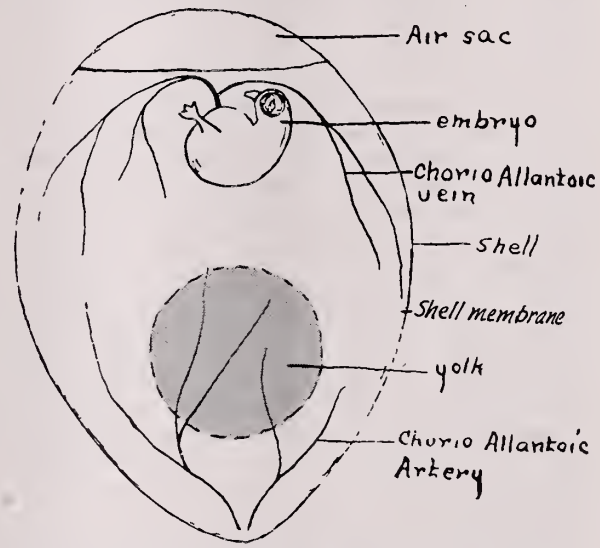

FIG. 4. Schematic drawing of an 11-day chick embryo.

Infected yolk sacs are now being used effectively in the preparation of vaccine and complement-fixing antigen for typhus. Yolk sac emulsion of Rocky Mountain spotted fever agent has been satisfactory for the preparation of vaccine; however, this has not yet developed into fully satisfactory complement-fixing antigen. Conversely the Q fever agent has been satisfactory for complement-fixing antigen and rather unsuitable for vaccine production.

We now depend on vaccines made from in-

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fected tissues of the rabbit or other mammal for protection against rabies, a disease which is quite prevalent here in the southwest. The agent in this product is killed with formalin, chloroform or other virucidal agent and is thereupon reduced in immunizing potency. The rabies virus has been passaged through the chick embryo;[4] and it appears that the agent is losing its virulence or avidity for mammalian tissues with successive passages and is becoming more and more adapted to avian tissue. We might, therefore, anticipate a living vaccine for this disease, one which may dispel the feeling of uncertainty so prevalent with those rabies vaccines which are now at our disposal.

There is as yet no satisfactory immunization against measles. The agent has been passaged through chick embryos and when reinoculated into children, an atypically mild immunizing reaction ensued.[16, 11] This, too, may presage a new effective living vaccine.

Much useful information has been collected from the study of transmissible neoplastic virus disease agents with the chick embryo.[12, 13] It has permitted interspecies passages and serological studies of avian leukemia.

Thus far, there has been little success in chick embryos with the viruses of poliomyelitis, dengue, lymphocytic choriomeningitis, cold virus, mumps, and some other virus diseases. Perhaps there has been insufficient attention to this approach; or more probably, a new approach is needed. It is not intended that the chick embryo supplant many of the excellent experimental laboratory animals available for some of the virus diseases, but that it supplement the variety of those being employed for the particular virus being studied. The chick embryo is by no means the solution to all of the virus-rickettsia problems, but its value in many of them is so apparent as to constitute self-indorsement.

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CAUSE AND TREATMENT OF RHINOPHARYNGEAL HEMORRHAGES

R. E. WINDHAM, M. D.
SAN ANGELO, TEXAS

I know of nothing in the rhinopharyngeal practice more disturbing than to be called to treat a hemorrhage, especially nasal, or to be notified that a patient on whom an operation has been done, is bleeding. Also, I know of nothing more exciting or disturbing to a patient than to have a hemorrhage. The average patient becomes frantic, to say nothing of the family, who are often affected much worse.

With these facts in mind I try to determine the probable cause of the various types of hemorrhage, both spontaneous and postoperative, and to devise a method of coping with each type and especially their prevention. The views expressed herein are my own and most of them have not been discussed or published.

I have read many articles on various types of hemorrhage and I shall frankly state that I knew no more after reading them than before; most of them were technical and dealt largely with blood dyscrasias and their medical treatment.

A discussion of all technical phases and medical treatment, particularly with regard to coagulants, various serums, vitamins, *et cetera,* will be omitted in this paper, as I do not believe in them. I shall try to present only practical, salient facts as I have worked them out and practiced them. Of course, we must not lose sight of the patient and his condition as the result of a hemorrhage which must be specifically treated. This treatment embodies blood transfusions, the giving of plasma, the combating of shock, and so forth, according to the condition of each individual patient.

NASAL HEMORRHAGE

Nasal hemorrhages may be classified into several types such as spontaneous and traumatic. In cases of spontaneous hemorrhage the age of the patient influences greatly the

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type, as in a patient under 40 years of age the bleeding is practically always from the anterior end of the nose and practically always on the septum from a ruptured superficial vessel; while in patients over 40 years, the greater number is due to ruptured vessels on the posterior end of the septum, postero-lateral nasal wall or middle turbinate, with the larger percentage on the lateral wall. In patients above 50 years, we begin to think of a postero-lateral wall nasal bleeding as an old person's disease, somewhat as we view senile cataracts, because of the prevalence of arteriosclerosis and high blood pressure. In this aged group in which we also include the so-called idiopathic hemorrhages. Traumatic hemorrhages are self-evident.

In the case of anterior septal hemorrhages, the bleeding comes from a rupture of one or more of the superficial plexus vessels or terminals of a vessel arising from the floor of the nose as it rises into the septum behind the muco-epithelial junction.

In treating these hemorrhages it is best to anesthetize by injecting novocain with adrenalin, and then to destroy the parent vessel with the actual cautery or diathermy needle, because if this is not done other vessels of the plexus will later rupture, causing recurrent hemorrhages. Trichloracetic acid may be used here, although it produces a necrosis and delayed healing; the patient must be cautioned not to disturb the scab that forms but keep it well oiled, allowing it to come away spontaneously, which it will usually do in about ten days.

In cases of traumatic hemorrhage, nasal packing is usually the method of choice inasmuch as usually mild to severe mucous membrane lacerations are present which need to be packed back into position; also these are usually associated with fractures which need the support given by packing.

Now, let us consider postnasal hemorrhages. We know this area is supplied by the terminal branch of the internal maxillary artery, the terminal of the external carotid, and by the anterior and posterior ethmoidal arteries, terminal branches of the internal carotid. Since the anatomy of the nose is so often deranged by deflected septa, and large turbinates, it is often extremely difficult and often impossible to locate the bleeding point. When the bleeding point can be located with the aid of suction tip, the area is anesthetized and cauterized by the actual cautery or diathermy. When the area cannot be located, and the so-called idiopathic bleeding is the diagnosis, the anterior ethmoidal artery is firmly ligated with No. 1 chromic catgut. It may be asked why the anterior ethmoidal artery is ligated. The answer is because it is so readily accessible and easily ligated and, in my experience, it is the offending vessel in about 95 per cent of cases.

If it can be determined that the bleeding is coming from the sphenoidal artery or terminal external carotid, a transantral ligation or an external carotid ligation can be done, but if the bleeding is from the posterior ethmoid, there is only one recourse, namely, to ligate the internal carotid.

It will be noted that I do not advocate packing to control bleeding because that is always done blindly with a large element of guess work and is exceedingly painful to the patient, repeated packings over a period of days usually being necessary. Both the patient and the doctor are about exhausted when the ordeal is over, and one never knows how soon it will have to be repeated. The patient is saved a heavy loss of blood when ligation is done, and is left relatively comfortable, with a much shorter period of convalescence, and the doctor's mind is at ease.

The anterior ethmoid is always ligated in all posterior nasal surgery involving the lateral wall and in all cases of external ethmospheno-frontal surgery; in doing these procedures a postoperative pack is rarely needed.

Incidentally, my approach in posterior ethmoid, sphenoid and frontal surgery is by the external route, as it has always been and still is my belief that one can not know that he has done a thorough intra-nasal posterior ethmoidectomy. I know of no good reason why the external approach should not be the method of choice. Especially is this so since in the event of hemorrhage, one can ligate both the anterior ethmoid and sphenoid arteries and close the operation without packing, with the assurance of little or no postoperative bleeding; if any packing is indicated, it is minor.

There is one other source of bleeding in the posterior nose that I should mention; this is along the posterior floor or upper surface of the soft palate, beneath the posterior end of the inferior turbinate and extending upon the lateral wall back of it. Bleeding here comes from a branch of the palatine artery or the sphenoid, or both, and my method of caring for these is to thoroughly cocainize the area with equal parts of 10 per cent cocain and adrenalin, and then to thoroughly cauterize with trichloracetic acid, which controls the bleeding; a hemorrhage here is not infrequent but is usually not so severe as one on the lateral wall or posterior septum.

In antrum surgery the occasional postoperative hemorrhage is usually severe and to be dreaded. I experienced my percentage of such hemorrhages until adopting the following method described about eighteen years

ago. Since its adoption I have not had a single postoperative hemorrhage to occur and very rarely leave any packing in the antrum. The procedure is as follows:

After making the canine fossa opening into the antrum, a sizeable artery is often encountered at the outer area and one near the nasal post, and when encountered they are cauterized with an electric cautery, a pointed Electro Surgical Instrument Company tip. After the cavity is cleaned, all bleeding vessels through the bony wall are fulgurated or touched with trichloracetic acid. The bone is removed by submucous resection over the area of a naso-antral window. The mucous membrane is never cut but removed by the electric cautery, which takes care of bleeding, especially the large vessel usually in its posterior area. Here there is often a large vessel just back of the nasal post in a Caldwell-Luc procedure, and it is cauterized well. With the procedure described my worries of a postoperative hemorrhage are a thing of the past.

In all forms of sinus surgery I use the cautery routinely and extensively.

In the throat there is seldom any spontaneous bleeding except occasionally from the rupture of a small capillary on the pharyngeal or epipharyngeal walls; when hemorrhages occur here, the bleeding points are coagulated by a diathermy needle.

One other throat hemorrhage occasionally seen is that from the tonsil as the result of electrocoagulation of the tonsil. Sometimes these hemorrhages are easily cared for; often they are very difficult to stop and in these cases I do a tonsillectomy and ligate the tonsil vessels. A friend of mine had such a case recently and in desperation called me for advice after trying for four days to control it. I advised removal of the tonsil and ligation of the vessels, which he did with prompt control.

I consider post-tonsillectomy hemorrhage wholly unnecessary and something a surgeon should feel very humiliated to have occur, for with a knowledge of the blood supply of the tonsil we know there are five sources of bleeding, all extremely accessible and easily ligated. All five vessels can generally be ligated with three ligatures to the tonsil in about 90 per cent of cases, or each can be ligated separately.

In my practice I do a complete ligation in every case, with a Dupuy-Weiss needle, using No. 1 plain catgut. Since adopting this method, postoperative hemorrhage from tonsillectomy is unknown in my practice.

Secondary bleeding after tonsillectomy caused by a slough occurring usually from the fifth to seventh day is unavoidable, even though they occur in only 1 to 2 per cent of cases. When they occur I remove the clot and inject the bleeding area with about 2 cc. of novocain solution to which has been added 4 or 5 minims of adrenalin, which controls the bleeding immediately if properly placed; then I cauterize the area with pure trichloracetic acid.

Hemorhage in adenoidectomy has been extensively discussed, especially by Dr. Jones of New York City. His main contention is that a hemorrhage here is due to leaving a piece of adenoid, or an incomplete operation.

Of course, no one will question the bleeding of a piece of adenoid tissue left behind, but my greatest difficulty has been in being possibly too thorough, removing all tissue down to the underlying muscle sheaths. The area of secondary bleeding has been from a vessel at the base of the sphenoidal septum, which appears to come possibly from a branch of the vertebral arteries. This vessel is not constant but when present a clamp is placed on it, and of course a clamp is placed on the descending pharyngeal branch of the sphenopalatine, and the ascending pharyngeal branch of the external maxillary on both sides, and allowed to remain for a while. At the same time all the operated area is touched with trichloracetic acid, followed by tincture of benzoin compound until all surface bleeding is controlled. The clamps are then removed, one by one, and if any bleeding occurs they are replaced for a longer period. By this procedure, with all the tonsillar vessels ligated, the patient's throat is as free of blood at the completion of the operation as when he was placed on the table.

I should like to report two typical cases of nasal hemorrhage, one of which was a success, and the other a failure with the initial procedure.

CASE 1.—Mrs. G., a white female, age 74, rather senile, reported with a severe nasal hemorrhage on April 20, 1943. After getting the initial bleeding controlled by cocain-adrenalin applications, no specific point was located as the source of bleeding, so the most probable areas were cauterized and a small pack inserted. In twenty-four hours the bleeding recurred, and again no bleeding point was located. The right anterior ethmoid artery was ligated, and in five days the bleeding recurred. Due to her age and general condition, rather than do anything more drastic, a post-nasal pack was inserted and the right nares was thoroughly packed, but in forty-eight hours the hemorrhage recurred. In order to stop further loss of blood, the common carotid artery was ligated, as the bleeding was definitely idiopathic in nature, and I could not tell whether it was coming from the terminal internal maxillary or posterior ethmoid.

The patient made a prompt uneventful recovery, taking care of her housework and making a small victory garden. She has never showed any untoward symptoms from the ligation.

CASE 2.—Mr. E., a white male, age 67 years, a moderate diabetic, gave a history of a severe nasal hem-

orrhage five years previously in Illinois. He bled for a week under repeated nasal packings.

On February 24, 1944, he reported to me with a rather severe bleeding from the right side of the nose. The nose was thoroughly cleaned, but no bleeding point could be located, the bleeding appearing to be idiopathic. The right anterior ethmoid artery was ligated and the posterior-inferior-lateral area was cauterized with trichloracetic acid, no packing being inserted. He had no further bleeding or difficulty, and he stated he was an advocate of ligation instead of packing.

ABSTRACT OF DISCUSSION

Dr. R. H. Gough, Fort Worth: Dr. Windham has made a good contribution to this section. We can readily visualize the picture he has described of the patient and the family in a hemorrhage case. Papers such as this are more valuable from a practical standpoint if they are a recitation of one's own experiences. Dr. Windham has, for that reason, no doubt, appended no bibliography.

I have never used trichloracetic acid in the nose, but I have used most of Dr. Windham's other procedures for nasal hemorrhage. He states that he does not believe in coagulants, serums, and vitamins. I am not so sure about serums and certain coagulants, but I have a lot of faith in some of the vitamins, namely vitamins K, B_1, D, A, C and Riboflavin, where they are respectively indicated.

The late Dr. Robert Lynch of New Orleans was a strong advocate of sutures following tonsillectomy. Dr. Windham's experience with sutures seems to justify that practice also, but I have not found them necessary in more than a half donzen cases during my practice over a period of forty years. I have never tried to remove a tonsil by electrocoagulation because I think it is a poor substitute for a quick, clean tonsillectomy with a cold wire snare. Dr. Windham did not say that he uses electrocoagulation, but mentioned a case. I refer to this only to disapprove of that procedure.

I enjoyed Dr. Windham's paper, and he has convinced me that he is a safe consultant to call in case of a severe hemorrhage from the nose or throat.

Dr. L. A. Nelson, Dallas: I want to congratulate Dr. Windham on his presentation of this very interesting subject as related to the nose and throat. I would, however, question the non-consideration of medical treatment in cases of hemorrhage. I think we should exhaust the medical possibilities, if time will permit, before resorting to more radical procedures. Fortunately, I have never had a case of hemorrhage so severe as to necessitate the ligation of either the internal or common carotid arteries. Personally, I have always been a little bit wary of this procedure, fearing the possible result of a cerebral catastrophe. Hemiplegia has occurred even in children in which case the prognosis is good for the return of function, but the same cannot be said of the adult. However, this in no wise compares to the fatal possibility of non-ligation when conditions demand this procedure. We speak of idiopathic hemorrhage because the cause is not known, but there must always be a reason; otherwise bleeding would not occur, although many times we are unable to ascertain that reason.

It is my belief that many of these cases of hemorrhage have as their background a subclinical scurvy. I have been agreeably surprised at the number of so-called idiopathic cases that respond to the subcutaneous administration of ascorbic acid. Nutritional surveys have pointed to a high incidence of vitamin C deficiency. In a North Carolina community of about 400 people, Milam found 83 per cent with plasma levels below the normal level of 0.6 mg. per ml. of blood and 27 per cent showed no vitamin C at all. Of 1,300 workers in a West Coast aviation plant, 77 per cent showed vitamin C deficiency, and this was in the citrus belt area. In a survey of 7,363 Chicago school children from various economic levels, the diet of 65 per cent was found below even the minimum standard for the consumption of fruits and vegetables, as set by the National Research Council.

While such vitamin C deficiencies do not often result in scurvy, it is now known that moderate deficiencies extending over a period of time do cause basic changes in tissues such as the nervous, skeletal and vascular systems, which lower the level of physical health. Since vitamin C helps protect the integrity of the capillaries, aids in the formation of hemoglobin and ionizes the calcium in the blood, I think it is logical to assume that where a deficiency exists, hemorrhage may occur, and the treatment is simple.

Dr. A. J. Streit, Amarillo: Dr. Windham has called our attention again to emergencies which occur in our daily practice. It is well to remember that the nasal hemorrhages in early life are usually found in Kisselbach's area, and later in life they are found more posteriorly and on the lateral wall. I have found a sclerosing solution of 10 per cent phenol in Sesame' oil or olive to be very useful and efficient in controlling the hemorrhage in the anterior portion of the septum and nose. After cocainization, five to ten minims of this solution are injected under the bleeding area. This brings about an obliteration of the bleeding area, and usually there is no further recurrence of the hemorrhage. Attention should be called to the fact that the sclerosing agent must not be made up in mineral oil.

Dr. R. E. Windham (closing): The remarks of all the discussers are greatly appreciated and quite helpful.

I wish to make myself understood on a few points. I have never been guilty of electrocoagulation of a tonsil but we do see the results of such procedures at the hands of quacks and osteopaths and are called to give emergency treatment; I have had my percentage of such cases.

My remarks on coagulants, serums, and vitamins were in relation to controlling severe bleeding, for which I consider them worthless; they do not act that rapidly. In the past I have saturated patients with them to no avail, and had to resort to more drastic means to control the bleeding, so now I control the bleeding and then treat the dyscrasias. I do not see how any medication could close the rupture of a sizeable vessel. A patient can easily bleed to death waiting for the correction of a blood dyscrasia.

I have used and still use sclerosing solutions in cases of minor nasal bleeding but I have had no success with them in cases of severe hemorrhage.

Some of the posterior nasal hemorrhages are so severe that one wonders if anything can be done in time to save the patient. I think there is nothing to be feared in the use of trichloracetic acid in the throat and adenoid region followed by tincture benzoin compound. I have used it ad libitum in hundreds of cases without ill effects; on the contrary, it seems to enhance the healing in a more normal way. Many chronic stagnant ulcers are stimulated into normal healing by its application.

Morbidity from tuberculosis in adolescence and early adult life is more frequently the result of household exposure after childhood than before, indicating that in early adult life infection from the environment is of greater importance than the breakdown of lesions acquired in childhood.—*Harold L. Israel, M. D. and Horace DeLien, M. D., Amer. Journ of Pub. Health,* Oct. 1942.

UVEITIS AND ITS RELATION TO FOCAL INFECTIONS AND ALLERGY

Some Observations Concerning the Diagnosis, Prognosis, and Treatment of the Several Clinical Types.

WILLIAM D. GILL, M. D.
SAN ANTONIO, TEXAS

Anatomically the uveal tract of the eye is composed of the iris, ciliary body and choroid. The term uveitis is used to designate inflammation of this structure. While the term uveitis leaves much to be desired, it is the one generally employed at the present time and will be used in this article. More specifically we speak of iritis, cyclitis and choroiditis, or use compound diagnostic terms to designate the disease where there is coincident involvement of more than one structure. The disease may be acute or chronic and a variety of causes may be responsible for its occurrence. The influence of allergy in the course of such inflammations has received comparatively little prominence in medical writings, though there are instances of this disease in which allergic reactions play a powerful role.

Focal infection heads the list of causes of uveitis, but syphilis and tuberculosis contribute a substantial percentage of clinical cases. Rare types such as the leprous may be mentioned. There are other instances of this disease which follow direct injury to the eye, and also those cases in which no etiological factor can be isolated with certainty. In this latter group fall many of the allergic cases. Quite often more than one etiological factor is present. In addition to the cases caused by focal infection there are certain instances in which the anterior type of uveitis, as well as certain of the posterior type, which are due to food allergies or to vitamin deficiencies. The exact determination of the etiological factor back of each case is important, for the treatment of each type of uveitis is different and the successful outcome hinges largely on the selection of proper medication.

Involvement of the iris and ciliary body usually occurs coincidentally and it is rare to find involvement of one structure without some degree of involvement of the other. The choroidal tissue may or may not participate in inflammation of the iris or ciliary body. The posterior type of uveitis is manifested chiefly by involvement of the choroid or posterior portion of the uveal tract, and does not necessarily extend forward to involve the iris and ciliary body. Sometimes the involvement is so strictly delimited that a strikingly impressive picture is presented.

Read before the Section on Eye, Ear, Nose and Throat, State Medical Association of Texas, Fort Worth, April 20, 1944.

The slit lamp is invaluable in detecting early changes in uveitis, particularly in detecting cellular deposits, exudate and changes in the iris. In checking results of treatment where the eye is not too photophobic to permit its use, it affords valuable information.

In the treatment of anterior uveitis, or iritis (iridocyclitis) the fundamental therapeutic principles are too well known to warrant extended discussion. There are, however, a few points in treatment which can be emphasized that have a practical bearing. In the use of atropine for dilatation of the pupil, one should use a solution strong enough to get maximum dilation which in the opinion of most observers is a 2 per cent aqueous solution. Neosynephrin or paredrine may be employed either as a substitute for atropine or as an adjunct to it. Massage judiciously applied to the eye will often break up synechiae which have not yielded to simple instillation of mydriatics. The use of ointments containing mydriatics serves as a lubricant and facilitates massage. Hot fomentations are most soothing to the patient and are valuable to relieve pain. Internally the use of opiates will quite often be required for relief of pain in anterior uveitis, and the sedative effect of dionin is often desirable. The use of foreign proteins, of which there are many available, is recommended for routine use. Typhoid vaccine is quite satisfactory for this purpose, and is given either hypodermically or intravenously, preferably the former. The usual daily hypodermic dose is 0.5 cc., while if given intravenously a much reduced dose is necessary, usually one minim. Sodium salicylate is a time honored remedy and may be administered per rectum in 40 grain doses dissolved in 4 ounces of water, three times daily. Thus, a high concentration of the drug is very quickly obtained. The sulfonamides produce prompt results in many cases of uveitis due to focal infection. Discontinuance of all other internal medication is advisable if they are to be used.

It is self-evident that all suspicious foci of infection must be eradicated at the earliest possible time. It is well to recall that there is usually an increase in the intensity of symptoms when a focus of infection is disturbed by surgical trauma, but following the flare-up there almost always follows a rapid subsidence of all symptoms. At the present time the importance of focal infections in the production of remote lesions such as uveitis is being neglected to a certain degree. The wisdom of this trend is open to serious question.

Posterior uveitis is of great clinical significance not only because of the immediate

symptoms which it produces but the seriousness of the remote effects as well. Its onset may be insidious and marked by only a few subjective symptoms. Subjective flashes of light are an almost constant symptom and discomfort in the eyes is universally present. Uveitis posterior varies in degree; the mild cases may be entirely overlooked and the patient may have had many attempts made at changing lenses or fitting them to the eyes for the relief of asthenopic symptoms. Abnormal fluidity of the vitreous and floating opacities are constant findings in posterior uveitis due to focal infection. In severe cases the exudate may be so dense that a view of the fundus of the eye is unobtainable. Diminution in vision is present in varying degrees and is in direct proportion to the haziness of the media and exudate into the vitreous. Usually both eyes are affected coincidentally in the cases due to focal infection, though one eye is usually involved in advance of the other. Absorption of uveal pigment takes place at some stage in the course of uveitis, usually quite early, and a sensitization to this substance occurs. This point may be very easily determined by the intradermal injection of uveal pigment. The solution used for this purpose is the so-called normal solution, a suspension of pigment from one beef eye in 7.5 cc. of normal saline solution. The solution is inactivated by heating in the usual manner familiar to serologists. No preservatives are used in the test solution. Sterility is maintained by refrigeration in sealed ampoules. Sensitization to uveal pigment appears to be universally present in practically all cases of posterior uveitis due to focal infection after the disease has been present for a short time. The sensitization, which plays an important part in the course of the disease, must not be regarded as an etiological factor but represents only a phase in the course of the disease. With focal infections, sensitization to bacteria or their toxins precedes the uveal pigment sensitization and in cases of short duration may be the only type of hypersensitiveness present. Later in the course of the disease both bacterial and uveal pigment hypersensitivness will be present.

I have been quite forcibly impressed with the fact that all cases of posterior uveitis of focal infection origin, which have been observed over a period of years, show lenticular changes of a cataractous nature. Sometimes such changes come on within a few weeks or months, but usually a matter of several years is required for the average case of uveitis to be complicated by cataract. Cataract surgery is more hazardous under such conditions because of the fluidity of the vitreous and the probable presence of synechiae.

The colon is involved in some type of colitis in a large percentage of cases of uveitis. Constipation is the rule, and one will be impressed with the improvement which often follows the administration of a mercurial purge to these patients. An x-ray study of 25 consecutive cases of posterior uveitis in one series of cases investigated revealed colitis in all the patients. In most of them it was of the spastic type. Culture of the stool in patients with uveitis, which has been present for an appreciable time, will usually show a high percentage of streptococci. The use of vaccines prepared from these organisms is often of great value in treatment. The distribution of focal infections in a series of 230 patients with chronic posterior uveitis showed that 40 per cent or better had infection in the teeth, tonsils, or nasal accessory sinuses. Sometimes infection was present in more than one area in the same patient. Uveal pigment hypersensitiveness does not occur in iritis due to the difference of pigment in that structure and in the remainder of the uveal tract. In the posterior portion of the uveal tract the pigment is melanin occurring in granule form while in the iris and anterior portion of the ciliary body it is chiefly a lipofuchsin occurring in needle form.

In the syphilitic types of uveitis, both anterior and posterior, the prognosis is good as prompt response follows if the usual antisyphilitic treatment is used. Uveal pigment hypersensitiveness is not present in these cases and if properly treated, they do not tend to become chronic, nor are lenticular changes as prone to occur. Recurrences take place if syphilitic treatment is inadequate.

In the tuberculous types of uveitis the prognosis is much more serious, but not at all hopeless. Diagnosis is made by eliciting a hypersensitive reaction to tuberculin injected intradermally. This is regarded as an allergic reaction to tubercle bacillus protein. In performing these tests our preference is for old tuberculin. The initial test is made with 0.1 cc. of a 1:100,000 dilution injected intradermally. If this be negative, the amount is doubled, 0.2 cc. being used. The solution is increased by 0.1 cc. at each dose and the results read forty-eight hours after each injection. Tuberculous lesions will usually show a reaction at the 0.2 or 0.3 cc. level. Reactions are classified as three kinds: the local, which occurs in the skin at the point of injection; the general, which is manifested by temperature elevation, increase in rales in the chest or increased cough; and the focal or an increase in symptoms in the

eye. All three types of reaction must be checked to insure diagnostic accuracy and at least two of the three types of reaction must be induced by a small dose of very dilute tuberculin to warrant a positive diagnosis of ocular tuberculosis.

Treatment in the tuberculous types of uveitis, both anterior and posterior, is best accomplished by the use of tuberculin, and for this purpose the dilutions of old tuberculin are quite satisfactory. This is in effect a desensitization. Great care must be exercised in the administration of tuberculin therapeutically, for too large a dose may provoke a focal reaction in the involved eye sufficiently severe to literally wreck the eye. Such a reaction is in the nature of an Arthus phenomenon, which is a reaction occurring in a previously sensitized structure when the responsible allergin or sensitizing agent is reintroduced into the body.

Leprous iritis or uveitis is rarely seen by the average ophthalmologist. Within the past ten years, only three such cases have come under my observation. In the treatment of these cases, they were all given chaulmoogra oil, or the chaulmoogra oil esters, plus typhoid vaccine, in addition to other therapy, with fairly satisfactory results in all cases. In one case the iris lesions and corneal haziness cleared up sufficiently for the patient to have a useful eye, but in the others only a subsidence in the inflammatory reaction occurred without improvement in vision. Results are slow in coming about and patience and persistence are necessary.

There is another group of cases in which involvement of the uveal tract appears to be of a purely allergic nature and due to the ingestion of some food stuff to which the patient is specifically hypersensitive. These cases are usually quite fleeting in duration though recurrences may be frequent. Skin testing and the use of an elimination diet to discover the offending allergin will usually suffice to control this group of cases. Vitamin deficiencies (A and D) usually play a part in these cases by rendering the individual more susceptible to such attacks.

There are still other cases of uveitis, both anterior and posterior, which apparently have their origin in some type of glandular dysfunction. In the female such cases are prone to occur in close proximity to the menstrual period and in the male they are usually associated with some disturbance in the reproductive organs, usually the prostate, and investigation along these lines is always in order in resistant cases.

The use of any drug which limits exudation, such as calcium, is important in the therapy of uveitis, particularly in combating the allergic factor, and its value is further increased by the internal administration of dessicated parathyroid gland, gr. 1/16 to 1/20, three times daily, or the hypodermic administration of parathyroid extract in 0.5 cc. doses, once daily as the average adult dose.

Discomfort in the eyes, associated with fluid vitreous and floating opacities, with a globe that is sensitive to palpation, will not be relieved by a change in lenses, for appropriate treatment of the underlying cause of the low grade uveal inflammation is the only way in which eye comfort can be obtained.

Desensitization with uveal pigment should be attempted in all cases of uveal inflammation showing positive skin reactions to this substance. This is accomplished by the hypodermic administration of the so-called normal suspension of uveal pigment referred to earlier in this paper, with the exception that the therapeutic solution of uveal pigment has tricresol added as a preservative.

This presentation would be incomplete without some word concerning sympathetic uveitis or sympathetic ophthalmia. In this condition, which usually follows traumatism to the eye, the fellow eye becomes involved in a more or less violent reaction in the choroid, but extending to other tissues of the eye, in which both eyes will be lost if the condition is not promptly recognized and remedial measures applied immediately. So far as the pathology of sympathetic opthalmia is concerned it is not vastly different from uveitis due to focal infection, except in degree. Sensitization to uveal pigment occurs in the course of this type of uveitis, and in practically every case of sympathetic ophthalmia coming under my observation, which comprises a series of 13 cases, focal infections have apparently played an important part. In those cases which I have observed, clinical improvement has been most marked when the focal infection has been eradicated in conjunction with desensitization with uveal pigment. A diligent search should be made for focal infections in all instances of sympathetic ophthalmia, and all questionable foci should be promptly eradicated when discovered. This step is just as important as uveal pigment desensitization, for the latter measure will not succeed if the former condition is disregarded.

The usual pigment suspension is used therapeutically in sympathetic ophthalmia, beginning with 0.25 cc. daily, increasing 0.25 cc. daily until a maximum of 2 cc. has been reached, at which level it is continued until clinical cure has been attained or the hope-

lessness of the case definitely established. This form of therapy is not recommended to the exclusion of other measures, but as an adjunct to them.

There will still remain a sizeable percentage of patients with uveitis that resist all treatment, and it is in such cases that the slow and inevitable progress toward destruction of the function of the eye gives rise to the most melancholy spectacle within the realm of our specialty. It is to be hoped that the newer drugs of the sulfa class will produce beneficial results in some of these unfortunate patients, or that research will develop other therapeutic measures which will prove effective.

ABSTRACT OF DISCUSSION

Dr. F. H. Newton, Dallas: It is always a pleasure to hear one of Dr. Gill's papers. In the discussion there are a few points that might be mentioned or emphasized.

1. We must remember that uveitis is influenced by the general condition of the patient, irrespective of any focus of infection which may be present. If his general condition is low, then his susceptibility to uveitis is increased. The cause producing an attack of uveitis in a patient often would not be sufficient to produce such an attack, unless the general condition of the patient was lowered. For that reason we must not only combat any foci of infection, but establish for the patient a good general routine for building up his resistance. This includes, of course, proper diet and a proper vitamin program. It is my feeling that the B complex family and vitamin C have more influence in relieving or preventing attacks of uveitis than any of the other group. We are all seeing the remarkable results obtained from the treatment of marginal keratitis by the use of vitamin B complex, particularly B_2, and we also see iritis not infrequently associated with this type of keratitis.

2. Dr. Gill mentioned the use of atropine and massage to break up posterior synechiae. I offer a word of warning about the massage. If it is done too vigorously, a hemorrhage of considerable size can be produced.

3. The use of dionin is mentioned only to condemn it, since its use increases the vascular congestion which is already rather marked. Whatever influence dionin might have in increasing venous drainage, it is more than counterbalanced, I believe, by the increased blood to be taken care of.

4. A foreign protein, which is mild in action, and easily accessible, is Coley's vaccine; 0.3 cc., by subcutaneous or intramuscular injection, may be given every other day, and the patient can reach his home or hotel usually before the reaction sets in.

5. The effect of surgical removal of foci of infection we all know is often temporary, and may be due to the split protein reaction, and not to the removal of the actual infection.

6. The presence of a few floaters in the vitreous, particularly in an older patient without any other signs or symptoms, should not be the occasion for any warning. Such knowledge often upsets the patient unduly and unnecessarily.

7. Dr. Gill mentioned the frequent occurrence of cataract as a complication of uveitis. I am almost convinced that if a case of cataract develops spontaneously, it has at least a slight amount of low grade uveitis as a background. Of course, this does not apply to a decided instance of malnutrition, or other very positive systemic conditions. The presence of fluid vitreous produced by an old uveitis does not increase the hazard of a cataract extraction as much as we are led to believe. The loss of a moderate amount of fluid vitreous is not nearly as harmful as the loss of one-half that amount of normal vitreous, for the reason that where the vitreous is fluid, it is very similar to aqueous and is very quickly reproduced without the necessity of readjustment on the part of the eye. It is also true that eyes that have had an attack of uveitis, even of low grade, and have recovered from the same, apparently have developed some form of immunity to the recurrence of uveitis following a surgical procedure. I do not believe that it is mere chance that patients with old choroidal lesions have fewer postoperative complications. The vigorous, well-nourished patient of fifty years is more likely to have postoperative iritis than the frail patient of seventy. The older person seems to have developed a certain immunity to postoperative uveal inflammations. For this reason, delay in making a cataract extraction on the younger person may be indicated until the uveal susceptibility has diminished, or at least until all active uveitis has subsided.

Dr. C. S. Sykes, Galveston: Dr. Gill is to be commended for so capably handling such a big subject. I do not see how he covered it so completely in such a short space; so there is little I can add to what he said.

That foci of infection play an important role in uveitis, particularly in the recurrent, chronic, nondescript and non specific type is generally accepted in England and this country. Because we are unable to prove the relationship and base our conclusion on circumstantial evidence, there is still considerable controversy concerning it. There has been a tremendous amount of experimental work but that has necessarily been done on animals, so we cannot be sure that the same condition would apply in a like manner to the human.

We have all had cases where no causal foci could be found, in which orthodox treatment accomplished just as much as in some cases where remote infections were removed. On the other hand we have seen the most dramatic improvement follow the elimination of an apparently benign and symptomless infection.

The three schools of thought, tissue selectivity, specific toxin and allergy, have all presented very convincing though not incontrovertible evidence concerning their theories. It is quite probable that all play a part, but as to how much and under what circumstances is a question which has long been awaiting an answer.

Dr. Gill (closing): I wish to thank the gentlemen who discussed this paper for their generous remarks. Quite often there are ideas brought out in the discussion of a paper which are of more practical value than the paper itself.

I have never encountered a hemorrhage in the anterior chamber that I could attribute to the breaking up of posterior synechiae by massage. Massage should be applied very carefully to the eye since hemorrhage is a potential danger.

I do not feel the same as Dr. Newton in regard to the use of dionin in the eye. Its effect is rather fleeting and tolerance is so quickly established that it probably is not capable of producing any great degree of damage to the eye. Its effect as a lymphagogue and sedative is oft-times quite valuable.

There is still a great deal to be learned on the subject of uveitis, and it is my sincere hope that the remarks that have been made in this presentation may act as a stimulus for further research on this subject.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, May 7, 8, 9, 10, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association. Dr. Edgar G. Ballenger, Atlanta, Ga., President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society. Dr. M. K. McCullough, Dallas, President; Dr. E. D. Dumas, San Antonio, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, Fort Worth, February. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists. Dr. Milton A. Davison, Marlin, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association, Galveston, May 7, 1945. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 28, 1945. Dr. A. H. Braden, Houston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, May 7, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Society for Mental Hygiene. Dr. Charles W. Castner, Capitol Building, Austin, President; Miss Jennie S. Wilmot, University of Texas, Austin, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. J. B. White, Amarillo, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love. City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians, Galveston, May 7. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Amarillo, April. Dr. D. D. Cross, Lubbock, President; Dr. George Powers, Amarillo, Acting Secretary.

Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society, Marlin, July 10. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. J. W. Foy, Seymour, President; Dr. Joe R. Wise, 1212 W. Lancaster, Fort Worth, Secretary.

Fourteenth District Society. Denison, December. Dr. G. E. Brereton, Dallas, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

DALLAS ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY MEETING

The Dallas Academy of Ophthalmology and Otolaryngology will meet February 6, at the Dallas Athletic Club, with Dr. Ramon Castroviejo of Columbia-Presbyterian Medical Center, New York City, as honor guest. A luncheon honoring Dr. Castroviejo will be held at 1 p. m., followed by a lecture by Dr. Castroviejo on "Corneal Transplants."

A dinner honoring Dr. Castroviejo will be given at 6:30 p. m. followed by a lecture by the honor guest speaker on "Cataract Surgery."

Dr. Lester H. Quinn, Dallas, will serve as commentator, and Dr. V. R. Hurst, Longview, and Dr. Kelly Cox are scheduled discussers.

All who wish to attend must make reservations in advance for luncheon and dinner. Any member of the State Medical Association is cordially invited.

REGIONAL MEETING AMERICAN COLLEGE OF PHYSICIANS

A regional meeting of the American College of Physicians covering the states of Nebraska, Missouri, Kansas and Oklahoma, will be held jointly with the Oklahoma City Internists' Association February 22 and 23 at the Biltmore Hotel, Oklahoma City.

The following scientific program will be presented during the two days:

The Usual and Unusual Gastro-Intestinal Radiology—G. M. Tice, M. D., University of Kansas.
Rheumatic Fever—Carlos Pete, M. D., University of Kansas.
The Role of Calcium Metabolism in Circulatory Disease—Graham Asher, M. D., University of Kansas.
Peptic Ulcer, Comparative Study of Cases in General and Industrial Hospitals—Moise Levy, M. D., Houston, Governor of Texas for the College of Physicians, and L. B. Zeis, M. D.
The Clinical Use of Anticoagulants—Col. Edgar Allen, M. C., Army Service Forces, Headquarters 7th Service Command, Omaha, Nebraska.
Anterior Poliomyelitis Treatment, Bulbar Type—J. Harry Murphy, M. D., Creighton University, Nebraska.
Myth of Apex Beat—Frederick W. Niehaus, M. D., University of Nebraska.
The Injection Treatment of Esophageal Varices—Cecil O. Patterson, M. D., Southwestern Medical College, Dallas, Texas.
Penicillin—Major Carl Dietrick, Borden General Hospital, Chickasha, Oklahoma.
Some Observations in Thiouracil—Homer A. Ruprecht, M. D., Springer Clinic, Tulsa, Oklahoma.
Acute and Chronic Local Ventricular Ischemia—R. H. Bayley, M. D., University of Oklahoma.
Clinical Use of Testosterone Propionate—Henry Turner, M. D., University of Oklahoma.
(Subject unannounced)—Major General David N. W. Grant, Air Surgeon, Army Air Force.
Diagnosis of Hiatus Hernia—Oliver C. Melson, M. D., Governor of the College of Arkansas.
Rehabilitation Program of the U. S. Navy—Capt. O. Davis, Commanding Officer of Naval Hospital at Norman, Oklahoma.

The Washington Birthday Clinic will be presented at the Medical School building of the University of Oklahoma, under the direction of Dr. R. G. Goodwin, with a noon luncheon at the University Hospital. The program for the clinic follows:

9:30	Intrinsic Factors in Chronic Asthma—Ray M. Balyeat, M. D.
10:15	Inflammatory Rheumatism in Children—C. M. Pounders, M. D.
11:00	Peptic Ulcer—A. W. White, M. D.
11:45	Report on Cases of Frontal Lobotomy—Coyne H. Campbell, M. D., and Harry Wilkins, M. D.
12:00	Leukemia—Hugh Jeter, M. D.
2:00	Experience with Tiouracil in Hyperthyroidism—Bert F. Keltz, M. D.
2:45	Chest Infections—Phil M. McNeill, M. D.
3:30	Clinical Pathological Conference—C. J. Fishman, M. D. and H. C. Hopps, M. D.

At noon on the first day of the meeting, a luncheon will be held at the Biltmore Hotel, with Col. Edgar Allen as guest speaker following the luncheon of the Oklahoma City Chamber of Commerce. Colonel Allen's subject will be 'The Golden Age of Therapeutics."

On the evening of the first day, the Oklahoma County Medical Society will be host at a buffet dinner at the Oklahoma Club. On this occasion, Dr.

Ernest Irons, Chicago, Illinois, president of the College of Physicians, will be the principal speaker.

Mr. E. R. Loveland, Philadelphia, executive secretary of the College, will also be a guest speaker and will discuss the aims of the College.

On the evening of the second day, a banquet will be held at the Biltmore Hotel, $5 per plate. Dr. Irons will be a speaker on this occasion, also.

Texas physicians who can do so, are cordially invited to attend the meeting. There is no registration fee or other fees in connection with the scientific programs.

Hotel reservations should be secured through Mrs. Muriel Waller, 512 Medical Arts Building, Oklahoma City.

CRITICAL NEED FOR ARMY NURSES CONTINUES

Out of 27,000 recruiting letters sent by the Army Nurse Corps to nurses classified as 1-A for military service by the War Manpower Commission, only 710 replies have been received, and less than a third of these are from nurses qualified for commissions.

While the drive to recruit Army nurses lags, the number of patients being evacuated from overseas to the United States has been increased almost 300 per cent. In addition the overseas requirements for nurses continues to grow, with the quota for the month of December alone set at approximately 1000 nurses.—*News Notes*, S. G. O., Nov. 16, 1944.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during December:

Dr. W. K. Rundell, Wichita Falls—*Endometriosis* (21 articles).

Capt. David A. Nathan, Camp Maxey—*Fetus, development* (4 articles).

Miss Stella McCullough, Abilene—*Medicine, socialized* (20 articles).

Dr. Homer E. Prince, Houston—*Medicine, socialized* (20 articles).

Dr. Charles Mims, Mission—(1 book).

Dr. E. W. Jones, Wellington—*Peptic Ulcer, surgery* (16 articles).

Dr. A. S. Epperson, Houston—*Actinomycosis* (25 articles).

Dr. J. D. Becton, Greenville—*Breast, cancer* (16 articles).

Dr. Jim Camp, Pecos—*Impotence* (10 articles).

Lt. C. B. Wyngarden, Camp Maxey—(4 journals).

Dr. Philipp Rosenheim, Corpus Christi—(1 book).

Dr. R. D. Holt, Meridian—*Empyema* (12 articles).

Mrs. Rex G. Fortenberry, Beaumont—*Medicine, socialized* (23 articles).

Dr. F. T. McIntire, San Angelo—*Rheumatic Fever* (12 articles).

Dr. R. C. Miller, Lake Jackson—*Dermographia* (11 articles).

Southwestern Medical College, Dallas—(1 journal).

Lt. Col. Richard A. Dathe, Camp Maxey—(1 journal).

Mrs. H. F. Schade, Librarian, San Antonio—(9 journals).

Dr. Leroy Trice, Palestine—(2 journals).

Maj. I. Fischer, Camp Bowie—*Relapsing Fever* (19 articles).

Dr. J. C. Terrell, Stephenville—(1 article).

Capt. J. P. Gibson, Whipple, Arizona—*Asthma, therapy* (6 articles).

Dr. A. A. Ledbetter, Houston—*Medicine, socialized* (15 articles); *Economics, medical* (5 articles).

Dr. H. L. Wilder, Pampa—(2 journals).

Dr. R. H. McCarty, Lubbock—*Lupus, erythematosus* (19 articles).

Dr. O. C. Egdorf, Wichita Falls—*Rhinitis, atrophic* (17 articles).

Maj. Lewis T. Bullock, Amarillo—(1 journal).

Accessions

Baltimore, Williams & Wilkins—Novak: The Woman Asks the Doctor.

Philadelphia, J. B. Lippincott Company—Lull and Hingson: Control of Pain in Childbirth; Fishbein: Medical Uses of Soap.

Springfield, Charles C. Thomas—Hamblen: Endocrinology of Woman.

New York, National Foundation of Infantile Paralysis—Collected Reprints of the Grantees of the National Foundation for Infantile Paralysis.

Summary

Reprints Received, 520	Local Users, 42
Journals Received, 136	Borrowers by Mail, 27
Items Consulted, 256	Packages Mailed, 28
Items Taken Out, 155	Items Mailed, 294

Total Items Consulted and Loaned, 705

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during December:

Memorial Hospital Staff, Corpus Christi—*Mastoid Surgery.*

Home Making Department, Marlin High School, Marlin—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

ARMY TREATMENT OF GONORRHEA AND SYPHILIS

In September 1944, the penicillin supply problem had eased to the point where the Army made penicillin the drug of choice in the treatment of gonorrhea and limited the use of the sulfonamides to cases which did not respond to adequate penicillin therapy or where penicillin was not available through normal supply channels.

Outlining the treatment to The Military Surgeons, Brigadier General Hugh J. Morgan, U. S. A., Chief Consultant in Medicine to The Surgeon General, said that "the initial treatment schedule recommended is 20,000 units intramuscularly every three hours for a total dosage of 100,000 units. Patients in whom a favorable response is not obtained by the third day are re-treated with 100,000 units. When patients fail to respond to the second course, a third course of penicillin totaling not less than 300,000 units, administered in 20,000 unit doses every three hours is recommended. Should this fail, sulfathiazole or sulfadiazine is used, employing a dosage of 4 grams initially, followed by 1 gram every four hours day and night for five days."

"It is too early, of course," said General Morgan, "to evaluate the effect of this new policy regarding the treatment of gonorrhea. There is every reason to believe that we shall look upon it in retrospect as constituting one of the most conspicuous advances made during this war in military medicine, in light of its almost certain favorable effect upon morbidity and noneffectiveness, and this in spite of a rising incidence rate."

In October 1944, the penicillin treatment of syphilis was authorized throughout the Army. "The total dosage for early syphilis and latent syphilis," said General Morgan, "is 2,400,000 units given in sixty consecutive intramuscular injections of 40,000 units at three hour intervals day and night for seven and one-half days. No additional anti-syphilitic therapy is to be given during or after the completion of the course of penicillin, except in the case of penicillin treatment failures. Prior to October 11, 1944, this method of treatment had been authorized for overseas theaters. Since that date it applies also to the zone of interior. Within the limits imposed by this short period of study, we have reason to believe that this method of treating syphilis will be every bit as effective and much less dangerous than any treatment plan heretofore employed."—*News Notes*, S. G. O., Nov. 16, 1944.

GOOD HEALTH OF TROOPS IN THE UNITED STATES

Admissions to military hospitals from troops stationed in the U. S. show that these soldiers are much healthier than were the troops stationed here during the last war. During the mobilization period, as might be expected in so large an army, admissions for disease increased somewhat over the peacetime rate. However, this rate is now dropping to peacetime level and rates of admission for respiratory and all important communicable diseases are far lower than in 1917-1919.

The death rate shows an even more marked improvement. It is not only lower than World War I, but is lower than the rate for the intervening peace years. This is probably due largely to the following factors: (a) reduced incidence of several communicable diseases which contribute appreciably to the mortality rate, (b) improved methods of treatment, most important being the introduction of chemotherapeutic agents, and (c) lowered average age of troops.

Among the communicable diseases figuring prominently in the present war are:

Meningococcal meningitis: As in the civilian population, this disease reached a prevalence several times higher than the normal inter-epidemic level in 1943; however, its prevalence has been somewhat lower than in the last war and its mortality, thanks to the sulfonamides, has been only a small fraction of that in the last war (case fatality rate 4.5 per cent in 1943 as against 34.3 per cent in 1917-1919).

Primary atypical pneumonia: Comparison with previous periods is impossible as this disease has only recently been recognized clinically. There is evidence that more of the pneumonias now occurring are primary atypical than of known bacterial etiology. The case fatality rate has been very low. The disease has had a seasonal distribution similar to that of the common respiratory diseases.

Diarrheal diseases: This group of diseases of diverse etiology, but having a common basis in deficiencies of sanitation, has shown a considerable increase from peacetime owing to the much greater number of troops on maneuvers, especially during the summer months, with the added problems of field sanitation. Case fatality is very low. The present trend of rates is downward.

With respect to other communicable diseases too, the record has been excellent. Measles, mumps, and scarlet fever are reduced greatly, while diseases against which immunizing methods are practiced (typhoid, smallpox, tetanus) have all but disappeared.—*News Notes*, S. G. O., Nov. 16, 1944.

NEWS

The Memorial Hospital Staff, Houston, elected the following officers for 1945, at a meeting December 12, informs the Houston *Post*: president, Dr. M. H. Latimer; vice-president, Dr. Abbe A. Ledbetter; secretary, Dr. Thomas P. Kennerly.

All members of the board of trustees were reelected. At the dinner meeting, Robert Jolly, superintendent of the hospital, introduced each of 125 guests attending.

Dr. Latimer spoke in behalf of the staff, and Mr. A. D. Foreman for the Board. F. M. Law, treasurer of the board, served as toastmaster. Members of the U. S. Cadet Nurse Corps glee club sang several numbers.

A Physicians Business Bureau was organized in August, 1944, to serve the physicians of Pampa, according to an announcement in the Pampa *News* by the secretary-manager of the Bureau. It was pointed out that the Bureau is not primarily a collecting agency but an organization to relieve the doctors of Pampa of business routine so that they can give more time to the care of the sick. It was stated, however, that the Bureau is expected to collect old accounts.

The secretary commended the citizens of Gray County, in that most of those whose names are in the files of the Bureau do pay promptly, and it was stated that those who do so and who receive monthly statements from the Bureau should understand that their account has not been turned over to a collecting agency; that such statements are simply a part of the service of the Bureau.

It was reported that in the five months of the Bureau's existence, a file of approximately 2,000 master cards had been built up, and that the Bureau was gradually becoming a credit exchange for its doctor members because a complete record of paying habits is kept.

A Bexar County Tuberculosis Study will be conducted under the sponsorship of the Bexar County Medical Society in cooperation with other agencies interested in the problem of tuberculosis, according to an announcement by Dr. J. W. Goode, president of the Society, following a recent meeting, states the San Antonio *Express*. The Society acted by adopting unanimously a resolution offered by Dr. J. W. McCorkle, chairman of the tuberculosis committee, proposing the co-sponsorship of a conference of agencies interested in the problem of tuberculosis in Bexar County. The public will be invited to participate in the program. Agencies which are directly concerned in San Antonio in the tuberculosis problem are the Bexar County Tuberculosis Association, the Community Welfare Council, the public schools of San Antonio, the city and county boards of health, the Robert B. Green Memorial Hospital, and the Bexar County Medical Society.

The Texas Medical Center of Houston plans were recently discussed by Dr. E. W. Bertner of Houston, acting director of the M. D. Anderson Hospital for Cancer Research, at a meeting of the Southampton Civic Club, reports the Houston *Chronicle*. Dr. Bertner asserted that about a dozen units of the center are already assured with aggregate beds of at least 3,500. He further asserted that of the $100,000,000 expected to finance the center, $32,000,000 has already been authorized from endowments and contributions. Dr. Bertner paid high tribute to the late Will Hogg, who many years ago planned such a project for Houston. He stated that no unit will be per-

mitted in the center unless its financing has been assured. To assure the proper development, the program provides that a minimum of 30 per cent of funds for each unit shall be withheld to provide for maintenance. Dr. Bertner stated that some centers in the United States are suffering distressingly today because all contributions were spent in the original construction program.

State Department of Health Blood Bank.—The mobile blood plasma unit of the State Department of Health was scheduled to visit Palestine recently to take blood from donors as part of a state-wide blood plasma program for civilians, it was announced by Dr. John T. Humphries, a representative of the Anderson County Medical Society, in the Palestine *Herald-Press*. Dr. Humphries released letters and pamphlets on the subject from Dr. S. W. Bohls, director of laboratories for the State Health Department. The purpose of the movement is to make processed blood plasma available for emergencies in any part of the state, free to patients. The State's mobile blood plasma unit was scheduled to be set up at the First Baptist Church in Palestine on a designated day for the taking of blood from volunteer donors. The State Laboratory will process the blood into dehydrated plasma without cost other than keeping 20 per cent to be used in building a state-wide plasma bank. Dr. Bohls suggested that each county or hospital have a blood bank so as to make plasma available to every community when it is needed.

In announcing plans for the blood clinic, Dr. Humphries stressed the point that volunteer donors are asked to give one pint of blood because the cost of the plasma when purchased from retail drug stores is prohibitive for persons of small means who may require more than a pint or two. The State Health Department Unit has agreed to visit Palestine only if 100 or more donors would agree to give a pint of blood each. Those willing to act as donors were requested to immediately register their names with Dr. Humphries.

An Army Medical Officers Convalescent Conference was recently held at the San Antonio Aviation Cadet Centers AAF Regional Hospital, December 1, 2 and 3 informs the San Antonio *Express*. Medical officers representing fifty Army Air Force hospitals attended. Capt. T. D. Paddison, chief of the San Antonio Aviation Cadet Center, had charge of arrangements for the conference.

Col. Howard A. Rusk, chief of the Convalescent Rehabilitation Division, Washington, D. C., was the principal speaker on a program that included discussions of physical reconditioning, educational training and personnel supply.

Department heads from convalescent units in nine states, including Kansas, Oklahoma, Arkansas, Louisiana, New Mexico, California, Missouri and the District of Columbia, took part in the meeting. Hospitals in the Central, Eastern and Western Flying Training Commands, the Second and Third Air Forces, Air Technical Service Command, Air Transport Command and the Western and Eastern Technical Training Command were included on the conference roster.

The Brownwood-Brown County Health Center building was formally opened to the public December 10, informs the Brownwood *Bulletin*. The brick and stucco building was erected at a cost of $65,000 at no expense to local bodies, from funds derived from the Lanham Act, because of the Army camp located at Brownwood, in addition to $210,000 for the U.S.O., $295,000 for schools, and other grants for housing, water works and other purposes, all for the purpose of improving the health and welfare of both service and civilian populations.

Construction of the building was completed about one year ago. The Federal government holds title, but the building is leased to the State Health Department. Its first occupant was the city-county health unit. It is also used as sub-offices for Brownwood and Brown County health officers, and by the Brown County Tuberculosis Association, the nursing division of the Brown County Red Cross Chapter; as headquarters and meeting place for Pecan Valley Water Works Association; as offices for the State district engineers, State district supervisory nurse, and district venereal disease control workers. Space is available for one of the State's regional laboratories, and plans are for the building of a center for supervision of health workers of Comanche, Coleman, Mills and San Saba counties when these counties participate in organized public health work.

Dr. E. W. Prothro, acting director of the city-county health unit, points out that $6,000 is needed for the laboratory, and when one-fourth of this amount is raised, the State will provide the equipment and personnel for the laboratory.

Complete equipment for the dental clinic of the center has been provided, and the clinic is expected to be opened very soon for the benefit of school children of the elementary grades.

A complete record is kept in the center on each person contacted by workers in the field, in the classrooms of the county, or at the health building.

More than 300 persons attended the open house December 10. Dr. H. L. Lobstein is Brown County health officer, and Dr. J. M. Horn, health officer of Brownwood.

The American Board of Obstetrics and Gynecology will holds its next written examinations and review of case histories (Part I) for all candidates in various cities of the United States and Canada on February 3. Candidates for the February 3, 1945, Part 1, Examination, who are entering military service, or who are now in service and may be assigned to foreign duty, may submit their case records in advance of the date stated, by forwarding the records to the Office of the Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania, from which office application blanks and further information may be secured.

The Office of the Surgeon General of the Army has issued instructions that physicians in service eligible for the Board examination be encouraged to apply and that they may request orders to Detached Duty for the purpose of taking these examinations whenever possible. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held later in the year at a time and place which will be publicized to all candidates well in advance. Candidates in military service are requested to keep the Office of the Secretary informed of any change in address. If a candidate in service finds it impossible to proceed with the examinations of the Board, deferment without time penalty will be granted under a waiver of published regulations applying to civilian candidates.

University of Texas News.—*Dr. H. G. Ralston*, formerly of the University of California, was recently added to the staff of the University of Texas School of Medicine in the Department of Physiology, informs the Galveston *Tribune*.

The *Tribune* also reports recently a number of appointments to the staff of the School of Medicine by the Board of Regents at a session in El Paso. *Dr. Tsun Tung* was named research associate in the Department of Dermatology and Syphilology. *Dr. William L. Marr* was named director of the Department of Hermatology and Allergy, recently created. *Dr. Lyle J. Logue* was appointed otolaryngologist to fill the vacancy caused by the resignation of Dr. John H. Foster of Houston, who resigned from the staff of the M. D. Anderson Hospital for Cancer Research, Houston.

Dr. Antonio G. Ochoa, mycologist of the Institute of Tropical Medicine, Mexico City, was a recent visitor at the University of Texas School of Medicine, Galveston, for special conferences on tissue culture and fungus diseases.

Dr. James Greenwood, Jr., Houston has donated a considerable fund for the establishment of the James Greenwood Lectureship, in Neurology and Neuro-Surgery, at the University of Texas School of Medicine, in honor of his father. The lectureship will provide for meetings both at the Baylor Medical College in Houston and the University of Texas School of Medicine in Galveston.

The National Livestock and Meat Board of Chicago have donated $7,200 to the University of Texas School of Medicine, Galveston, for the support of work in fat metabolism under the direction of Dr. Arild E. Hansen, professor of pediatrics and director of the Child Health Program. The Child Health Program is supported by the William Buchanan Foundation of Texarkana.

A grant of $1,800 was recently made by Abbott Laboratories, Chicago, to the Department of Internal Medicine of the University of Texas, Galveston, to support research work of Dr. Charles T. Stone, professor of medicine.

Removal of the Medical School From Galveston continues to be news in Texas newspapers. The Austin *American* stated recently that the resolution calling for the removal of the medical school from Galveston, adopted by the student body of the medical school originated in Galveston, according to Howard Lebus, president of the student body. Lebus, in a telephone conversation from Houston, asserted that the resolution originated among the students in Galveston as they felt it their obligation to express their views. This statement came in answer to an earlier one by Dr. C. D. Leake, Dean of the Medical School, "who said he believed the resolution originated among students at the main University and that the medical students knew nothing about it." Lebus said the resolution was written by a council composed of representatives of the medical fraternities and independent students and was presented to the students individually for their vote, the vote being 319 for the resolution, 41 against, 9 with no opinion and 15 non-contacted.

The faculty of the medical college at Galveston recently expressed their confidence in the "judgment and wisdom" (quotation marks not ours) of the Board of Regents of the University of Texas, states the Galveston *Tribune.* A statement was prepared at a faculty meeting and addressed to the Senate committee investigating affairs of the University. The statement was released by State Senator Penrose Metcalf of San Angelo, chairman of the committee. Copies of the statement went to the Board of Regents and Governor Coke Stevenson, and a copy of the minutes of the faculty meeting was sent to Dr. T. S. Painter, acting president of the faculty of the University of Texas. The statement of the faculty was signed by Mr. John C. Nolan, secretary, and was attested to by Dr. C. D. Leake, vice-president and dean of the medical college. The faculty statement follows:

"Gentlemen:

"Since the medical branch of the University of Texas has been discussed before the senate committee investigating affairs at the university, we the faculty of the University of Texas School of Medicine, wish it to be understood that we have confidence in the judgment and wisdom of the board of regents of the University of Texas on the basis of our experience at the medical branch.

"For a period of about three years, beginning in 1939, the University of Texas School of Medicine suffered severely from unwise administration. This produced a seriously confused situation in the school of medicine. As a result of deplorable lack of mutual confidence between the university and medical school administration on the one hand, and the faculty of the school of medicine on the other, the school of medicine was placed on probation by the Association of American Medical Colleges and by the Council on Medical Education and Hospitals of the American Medical Association.

"The board of regents investigation of this condition was patient and thorough. We acknowledge our gratification for the effective action taken by the board of regents in correcting the faulty administration of the medical branch. The improved circumstances established by the regents resulted in restoring the school of medicine to an efficient and harmonious condition and to its worthy place among the better American medical schools.

"As a result of the regents' decisions regarding the medical branch at that time, we are now enjoying that academic freedom and security of tenure which had previously been jeopardized by arbitrary administrators. We subscribe to the proposition that academic freedom, like any other freedom, implies responsibility for gentlemanly and dignified behavior, with a generous respect for the feelings, thoughts and opinions of others.

"This statement is made on the basis of documentary evidence available in the records of the medical branch and of the board of regents."

Dr. C. D. Leake, dean and executive vice president of the University of Texas School of Medicine, who has been active in protesting the removal of the medical school from Galveston, insisting that with proper financial support an outstanding medical school may be developed at Galveston, has released the following statistical information and factual data to medical alumni of the University and others interested in the medical school, under the dates of September, 1944, and January 1, 1945. The statistical data and communications from Dr. Leake follow:

"Facts on the University of Texas Medical Branch, Galveston:

"September, 1944

"1. VALUE: Land, buildings, equipment, carried at cost as of Aug. 31, 1944 at $4,463,346.64, not counting State Psychopathic Hospital nor Stewart Convalescent Home.

"2. STANDING: *Medical School* fully approved by Council on Medical Education and Hospitals of American Medical Association and by Association of American Medical Colleges.

Nursing School fully approved by State Board of Nurse Examiners, only accrediting agency recognized by American Medical Association.

John Sealy Hospital, one of only seven Texas hospitals approved by American College of Surgeons, and by Council on Medical Education and Hospitals of American Medical Association for interne and resident training, and whose nursing training is approved by State Board of Nurse Examiners.

Curricula for medical laboratory technicians, physiotherapists, and x-ray technicians approved by Council on Medical Education and Hospitals, American Medical Association.

"3. STAFF: *Need* 200 teachers (1 per 10 students per course, with 20 major courses and 100 students per course).

Have 174; had 158 in 1943; 86 in 1939.

Clinical teachers now 66, with 33 on "full-time," not engaged in private practice.

In military service, 18.

Holding prominent office in major professional organizations, 22.

Published over 200 original scientific and clinical research contributions and 3 important medical books in 1943 and 1944.

Participated in over 100 postgraduate training sessions in this country and abroad, in 1943 and 1944.

Regular consultants for war effort, appointed by military or war agencies, 10.

"4. CLINICAL MATERIAL: *Need* at least 5 beds per clinical student, or 1,000 bed hospital.

Have 420 bed hospital (State Psychopathic Hospital, 100 beds, closed).

For fiscal year ending Sept. 1, 1943, had: 2,365 Galveston charity patients, for 32,953 patient-days; 3,001 State referred charity patients, for 64,055 patient-days; 3,988 pay patients, for 52,654 patient-days, at average patient-day cost of $4.90.

1,275 State referred patients were admitted through diagnostic clinic on physicians' requests from 124 counties in the State (balance from State agencies).

State appropriation for year for hospital was $391,000.00. Waiting list daily over 60. With more beds and more support many more patients could be handled. Out-patient visits to the Clinic totaled 101,432 for the year, or about 300 per operating day.

"5. SEALY AND SMITH FOUNDATION: Chartered solely for support of John Sealy Hospital; operates with Regents $700,000.00 trust fund has potential asseth over $15,000,000.00.

Now offers University $2,000,000.00 for erection of general hospital, planned in 1939, to provide needed beds.

From 1888 to Nov. 1, 1942, the Sealy family and the Sealy and Smith Foundation have expended for the benefit of the John Sealy Hospital, $3,443,279.43. To provide for care of indigent sick of Galveston, used for teaching, and for repairs and upkeep of the hospital, the Foundation has given an average of $85,280.00 yearly since 1927.

"6. HEALTH PROGRAM: For benefit of people of State, to utilize for health education and research, suitable health facilities wherever they may exist in the State. Implied is co-ordination of Medical School, Nursing School and technicians curricula at Medical Branch, Galveston, for undergraduate and postgraduate teaching and research, with preceptorial centers for such efforts in Houston, San Antonio, Dallas, Temple, Wichita Falls, Austin and other centers, with the Dental School and the M. D. Anderson Hospital for Cancer Research in Houston, with the Hogg Foundation for Mental Hygiene, the College of Pharmacy, and other health activities at Austin, with the Child Health Program under the auspices of the William Buchanan Foundation of Texarkana, and with planned School of Public Health, Institute for Study of Old Age, and Institute for Geographical Medicine.

"Galveston, Texas, January 1, 1945.

"To all interested in the Medical Branch of the University of Texas:

"Dear Friends:

"In starting the New Year, it seems reasonable to expect that we might all agree on the following propositions:

"1. Our prime obligation right now is to fulfill, to the best of our ability, our responsibilities in an essential part of the war effort.

"2. Our major long range objective is to develop the Medical Branch, and its activities, wherever they may be located, in a manner worthy of the greatest State.

"3. The chief factors in the success of the Medical Branch, and of the medical training and health program of the Univeristy of Texas, are encouragement and support. Most important are good-will, sympathetic interest, and financial backing. Generous support makes possible a capable, efficient, and enthusiastic staff. This is essential no matter where the various activities of the Medical Branch or the health program are located.

"Plans may be proposed with reference to these propositions. Suggestions have been made by the Council on Medical Education and Hospitals of the American Medical Association, and also by the Association of American Medical Colleges. These agree in stating that, while we have a good school, our classes are too large for the facilities so far provided. Since the Regents, bearing in mind the needs for medical education in Texas, are not willing to reduce the size of our classes, it is clear that we should increase our laboratory and clinical installations.

"Rated as a median American medical school in 1936 during the national survey made by the American Medical Association, we have progressed since that time, as the accompanying table indicates. In addition to 420 beds in the John Sealy Hospital and the State Hospital for Crippled and Deformed Children, we enjoy clinical teaching opportunities at the Marine Hospital (200 beds). If the Galveston State Psychiatric Hospital is re-opened, an additional 100 beds will be available. The Margie B. Stewart Home for Convalescent Children will accommodate some 50 more patients. But we need still more beds, and more laboratory facilities, so as to be on a par with such a school as that at the University of Michigan. The Regents have accepted a $2,000,000 offer from the Sealy and Smith Foundation for a new 600 bed general hospital, to include 200 beds for private patients (which are used for teaching). A 200 bed tuberculosis hospital is contemplated. Within a few years then, it seems that over 1200 beds might be on hand to help provide acceptable clinical teaching material. However, funds must be secured for rapid auto transportation from outlying territory to expedite service to the indigent sick. This is necessary no matter where the School might be, if state-wide service is to be rendered.

"The preceptorial system for fourth year students affords practical clinical opportunities in approved hospitals in various Texas cities. Extension of this system offers much, if capable clinical supervision is maintained.

"Thanks to our Houston colleagues, plans are being considered for extension of clinical teaching in the Medical Center developing there. Plans are also made for assistance in post-graduate medical training centers in other large Texas cities. The health program of the University proposes co-operation between the Medical Branch, including the Medical School, the College of Nursing, and the technical curricula, with the Dental School, the M. D. Anderson Hospital for Cancer Research, the College of Pharmacy, and a proposed School of Public Health, and Institutes for Old Age, Geographical Medicine, and Aviation Medicine. The co-ordination of these various aspects of the health program presupposes utilization of appropriate facilities in Texas wherever they may most satisfactorily, efficiently, and economically be provided.

"May the New Year be satisfying!

CHAUNCY D. LEAKE, Executive Vice-President."

Galveston, Texas, January 1, 1945

A Decade's Progress at the University of Texas School of Medicine:

"In 1936 the School was surveyed by the Council on Medical Education and Hospitals of the American Medical Association, in comparison with all other medical schools in the country. It rated medianly, that is about average, with respect to organization, administration, library, faculty (competence, adequacy, research and scientific interests), educational program, clinical facilities, financing and departmental status (physical facilities, personnel, teaching program, research).

"Since that time the following improvements have been made: strengthening of staff, especially by internationally recognized men of professorial rank;

improvement of library; re-organiaztion of teaching program; addition of State Hospital for Crippled and Deformed Children, and Margie B. Stewart Home for Convalescent Children; establishment of Child Health Program under auspices of Wm. Buchanan Foundation; development of broad research program; approval of four technical training curricula and residency services; intensive support of war effort; expansion of clinical teaching and service, and revamping of departments. Specific data are afforded in the table.

Now the School may reasonably be rated among the upper third of American medical schools, not equal yet to Harvard, Cornell, Pennsylvania, Hopkins, Michigan or California, but ranking with such schools as Iowa, Wisconsin, and Tulane.

	1936	1944
Professors	20	30
Associate Professors	14	25
Assistant Professors	9	22
Lecturers and Instructors	13	71
Residents and Interns	15	26
Total teaching staff	71	174
Full-time clinical teaching staff	8	33
Medical students	372	389
Scientific and clinical publications	55	112
Total volumes in library	25,858	42,168
Complete periodical files	333	452
Current journals	343	512
Available hospital beds (excluding State Psychiatric and Marine Hospitals)	350	420
Charity patients	4,016	5,692
Private patients	1,819	2,321
New Out-patients	11,055	10,800
Post-mortem percentage	58	65
Births	511	908
Operations	2,157	3,980
X-ray examinations and treatments	6,268	14,226
Clinical laboratory examinations	32,746	64,297
Physical and Occupational treatments	0	9,449
Blood and Plasma transfusions	126	1,006

C. D. LEAKE, Dean.

The Second International Medical Congress will be held February 26 and 27 at Laredo, with physicians attending from the United States and Mexico. Sponsors of the program of the Congress are the State Medical Association of Texas, the American Trudeau Society, the Pan-American Sanitary Bureau, the U. S. Public Health Service, the National Tuberculosis Association, the Texas Tuberculosis Association, and the Southwest District Medical Society. Local hosts will be the Webb-Zapata-Jim Hogg Counties Medical Society and the Webb County Tuberculosis Association. United States physicians on the program include Dr. Henry C. Sweany, Medical Director of Research, Chicago Municipal Sanatorium, whose subjects will be (1) "Evaluation of the Methods of Treatment of Tuberculosis by Pathological Standards," and (2) "Principles Underlying the Management of Tubreculosis in Pregnancy;" Dr. Amos Christie, Professor of Pediatrics, School of Medicine, Vanderbilt University, whose subjects will be (1) "Recent Advances in Pediatrics" and (2) "Infant Feeding"; and Dr. Udo Wile, Medical Director, Reserve, U. S. Public Health Service, whose subjects will be (1) "Modern Methods in the Treatment of Syphilis," and (2) "Complications of Treatment."

Mexican physicians who will contribute to the program include Dr. Ismael Cosio Villegas and Dr. Miguel Jimenez, Chief and Assistant Chief, respectively, of the Division of Tuberculosis Control, Federal Health Department of Mexico, who will discuss "Collapse Therapy in the Treatment of Tuberculosis."

Texas physicians are cordially invited to attend the meeting. Requests for hotel reservations should be addressed to Miss Pansy Nichols, 700 Brazos Street, Austin 22, Texas.

The American College of Surgeons announced recently the following initiates from Texas who were accepted into Fellowship in the American College of Surgeons in 1944: Drs. Granville Q. Adams, Herbert L. Alexander, Cecil M. Crigler, Franklin K. Dornak, Joseph R. Gandy, and Reagan M. Marshall, Houston; Francisco M. Canseco, Laredo; William P. Farrar, Longview; Joe R. Floyd, and Robert F. Thompson, El Paso; Henry Winston Harper, Jr., Fort Worth; M. Ruth Jackson and Tom E. Smith, Dallas; Hannibal L. Jaworski, Waco; William R. Klingensmith, Amarillo; Walter J. Maxwell, Jr., Paul M. Ramey and Terrell Speed, Temple; Harvey Renger, Hallettsville; Raleigh R. Ross, Lockhart; Robert G. Swearingen, Corpus Christi; Roy W. Varner, Abilene; and Laurence M. Wig, San Angelo.

Bexar County Medical Society Honors Col. Charles Franklin Craig.—Dr. Charles Franklin Craig, retired U. S. Army Colonel, was given a testimonial dinner by Bexar County Medical Society December 7, at the Gunter Hotel, San Antonio. The affair was open to the public. The dinner was attended by 250 persons, including in addition to members of the Bexar County Medical Society, Brig. Gen. G. C. Beach of Brooke General Hospital, Col. W. Lee Hart, Chief Medical Officer, Eighth Service Command; Dr. James A. Greene, Dean, Baylor University College of Medicine, Houston; County Judge Charles W. Anderson of San Antonio; and Dr. S. W. Bohls, Director of Laboratories of Texas State Board of Health, all of whom made short addresses.

Dr. W. B. Russ served as toastmaster and letters and telegrams of appreciation of Colonel Craig were presented.

Dr. P. I. Nixon of San Antonio, gave the principal address, eulogizing the life and work of Colonel Craig and his contribution to the advancement of medicine during fifty years of service. Other speakers on the formal program included Dr. James A. Greene, Dean of Baylor University, and Col. J. C. Woodland. Colonel Craig's response was modestly brief.

The tributes to Colonel Craig point out that he was the first to establish that dengue fever has its source in a filterable virus. Dr. Russ paid tribute to him as a "distinguished scientist and humanitarian whose life and great talents have been devoted solely to protection of our nation against ravages of disease, healing of wounds and rehabilitating victims of war."

Dr. P. I. Nixon outlined the exhaustive record of accomplishments of Dr. Craig, pointing out that he is internationally recognized as a pathologist, bacteriologist and authority on tropical medicine. Dr. Craig graduated from Yale University fifty years ago. He is now professor emeritus of tropical medicine of Tulane University in New Orleans. He served as curator at the Army Medical Museum in 1919 and 1920 and was assistant commandant of the Army Medical Center in Washington, D. C., in 1929 and 1930. During his active years of research and work in his chosen field, he also served as editor of the *American Journal of Tropical Medicine.*

During the dinner session, Col. J. C. Woodland of Brooke General Hospital, presented a paper on bullis fever, in which he gave credit to Dr. Craig for his assistance in research in connection with that disease.

MILITARY PERSONALS

Major W. O. Williams, of Houston before entering the service, and now serving in a base hospital in England, caring for war casualties, will be able to hold his own in a future "bull session" with his son, Lt. W. O. Williams, Jr., now serving with a B-29 outfit in the Pacific, informs the Houston *Press.* Major Williams served as a captain in France in World War I. He is having interesting medical experiences in

the present war. He refers to weather around the north coast of England as "shivering and dripping." He asked an old-timer recently if they ever had summer, and the old-timer replied, "It came on Thursday last year."

Lt. and Mrs. W. I. Southerland, formerly of Sherman, prior to Dr. Southerland's entry into the medical corps of the Navy in 1942, were recently visiting friends in Sherman, states the Sherman *Democrat.* Lieutenant Southerland served overseas in the Pacific area during 1942 and 1943, returning home a year ago for assignment in Florida and Camp Wallace.

Dr. Leopold Villareal, serving with the Army medical corps in Holland, was recently promoted from first lieutenant to captain, states the El Paso *Herald.* Captain Villareal was formerly on the staff of the Hotel Dieu, El Paso.

Dr. Otis Taylor, Jr. of Lubbock, was recently appointed to the commission of first lieutenant, medical corps, Army of the United States, for service with the Veterans Administration.

Dr. Claunch G. Brindley of Kingsville, was recently appointed a lieutenant in the medical corps of the Navy and was ordered to active duty December 28, 1944.

Dr. James W. Clark of Orange, recently received a commisison in the medical corps of the Navy and was ordered to active duty to the Corpus Christi Naval Air Base, as a lieutenant (j.g.), on December 4, 1944.

Dr. Virginia L. Wright of Corpus Christi, was commissioned a first lieutenant in the medical corps of the Army for service with the Veterans Administration, under date of November 28, 1944, and was ordered to active duty on December 12, 1944 to the Veterans Administration Facility at Palo Alto, California.

Dr. Thomas J. Kirby and *Dr. John Warren Reid,* intern and resident respectively, at Brackenridge Hospital, Austin, recently completed their services and were ordered to active duty as first lieutenants in the Army of the United States, at Carlisle Barracks, Pennsylvania.

Drs. Howell R. Gaddy, Jr., Henry G. Hearnsberger, Jr., and *Seth W. Lehmberg,* recently completed internships at Santa Rosa Hospital, San Antonio, and have been ordered to active duty in the medical corps of the United States Navy.

Dr. Julius Finkelstein, former intern at the Methodist Hospital, Dallas, recently completed his service and was ordered to active duty with the medical corps of the Army of the United States.

Dr. Kenneth V. Everts, former intern at Methodist Hospital, Dallas, recently completed his service and was ordered to active duty in the medical corps of the United States Navy.

Drs. Marney C. Isbell and *James L. Johnson* recently completed internships at Fort Worth City-County Hospital and Harris Memorial Hospital, Fort Worth, respectively, and were ordered to active duty with the medical corps of the Army of the United States.

Drs. Ervin E. Addy, Jr., Darrel B. Faubion, Clarence E. Gordon, John R. Harris, Thomas M. McCrory and *Vance D. Hoffmaster, Jr.,* recently completed their service at the Robt. B. Green Memorial Hospital, San Antonio, and have entered on active duty with the Army Medical Corps of the United States.

Dr. Richard R. Ramsey completed a junior residency at Robt. B. Green Memorial Hospital and has entered active duty in the armed services.

Drs. M. C. Bessire, Joseph A. Stool, James N. Walker and *Jack F. McKemie,* former residents at the Children's Medical Center, Dallas, have entered active duty with the medical corps of the Army at the 64th Officers' Training Battalion, Carlisle Barracks, Pennsylvania.

Personals

Dr. V. B. Cozby of Grand Saline, Texas, was recently the recipient of a charter of a new hospital and of war bonds with which to pay for the erection of the first wing, given to him by E.B. Germany, Dallas oil operator, and a native of Grand Saline, in appreciation of the services rendered by Dr. Cozby to the Grand Saline area for more than a third of a century. Dr. Cozby has not only been a family practitioner for that area but he has served the city of Grand Saline as mayor since 1919. Some years ago, Dr. Cozby refused to seek re-election as mayor and named a candidate whom he regarded as acceptable and prepared to retire from public office. Grand Saline residents, however, wrote in his name on the ballot and he was elected overwhelmingly. The hospital to be erected with the funds furnished by E. B. Germany will be known as the Cozby-Germany Hospital, in honor of Dr. Cozby and Mr. Germany's mother, Mrs. J. W. Germany.—*Dallas News.*

Dr. T. C. Liddell and *Dr. T. J. McCamant* of El Paso, recently narrowly escaped injury and possible death when their automobile stalled on a railroad track crossing, informs the El Paso *Times.* Dr. Liddell went for help while Dr. McCamant walked up the tracks to flag down an oncoming train, but failed to attract the attention of the trainman with a flashlight. The train struck the car, carrying it 400 yards before the train stopped. Neither motorist was hurt.

Dr. G. F. Thornhill of Austin, was recently elected president of the Travis County Chapter, American Red Cross, for 1945, informs the *Austin-American.*

Dr. F. T. McIntire of San Angelo, recently suffered a broken right leg while trying to mount a horse, states the San Angelo *Times.* He was found by his daughter, Joyce, trying to make his way to the road. His daughter had gone out to ride with her father.

Dr. J. M. Hill of Dallas, director of the William Buchanan Blood Plasma and Serum Center at Baylor Hospital, and professor of clinical pathology, Southwestern Medical College, was recently given the honorary degree of *doctor honoris causae* by the University of Guadalajara, at a special ceremony in Guadalajara, State of Jalisco, Mexico, "in recognition of the important service he has rendered to science and to human kind," university officials announced in making the presentation. The process developed by Dr. Hill in cooperation with D. C. Pfeiffer, Dallas engineer, and in use at the William Buchanan Center for the process of separating plasma from blood and processing it into dry plasma, in which form it can be kept indefinitely for use in emergency transfusions, has been adopted by the State of Jalisco, Mexico, for its blood bank for civil defense. Dr. Hill assisted officials of Jalisco in setting up their blood bank.

Dr. George W. Cox was reappointed State Health Officer for the fifth two-year term at a meeting of the State Board of Health, December 4, reports the Austin *Statesman.* Members of the Board attending stated that during Dr. Cox's administration, public health in Texas has reached its highest efficiency, with over 60 per cent of the population served by full-time health units; that there has been a great reduction in deaths from communicable diseases, and that the present life expectation in Texas is 63 years.

Marriages

Dr. R. B. Anderson of Fort Worth, was married to Mrs. Modena H. Landess, also of Fort Worth, December 27, 1944.

Dr. J. L. Jackson, Wichita Falls, was married to Miss Frances Harris Lockhart of Galveston, November 29, 1944. Dr. Jackson is a graduate of the University of Texas Medical College, and is now interning at the Episcopal Hospital, Philadelphia.

Births

A baby boy, Robert Keith, was born to Dr. and Mrs. Karl John Karnaky, Houston, December 5, 1944.

SOCIETY NEWS

Angelina County Society

December 11, 1944

(Reported by B. H. Denman, Secretary)

Angelina County Medical Society held its regular annual business meeting December 11, at the Angelina County Hospital, with ten members present. T. A. Taylor, president, presided.

B. H. Denman, secretary, gave a report of the year's work and the financial report of the Society, which revealed a balance of $124.08 in the treasury.

Secretary Denman read communications with regard to the case of a member who had been expelled from the Society because of unethical practices.

An extended discussion was held regarding Procurement and Assignment matters in Angelina County.

The following officers were elected for 1945: president, Byford H. Denman; vice-president, J. R. Dale; secretary-treasurer, R. W. Taylor; board of censors, O. P. Gandy, for three years term.

L. T. Tinkle was nominated for membership on the Procurement and Assignment Advisory Committee to fill a vacancy caused by the entry of J. C. Clement into military service.

Annual dues of the Angelina County Medical Society for 1945 will be $25.00.

Bell County Society

December 6, 1944

(Reported by J. H. Greenwood, Secretary)

Bell County Medical Society met December 6, at the Kyle Hotel, Temple, with twenty members and five visitors present.

James H. Greenwood, secretary, read the minutes of the previous meeting and the financial report for the year, which was accepted.

Claudia Potter moved that $50 be paid to the assistant secretary, which motion carried.

George M. Tulloch was elected to membership on application.

Secretary J. H. Greenwood read a letter from the student association of the medical branch of the University of Texas, enclosing a resolution adopted by that organization urging removal of the medical department to a more advantageous location to insure its continued growth and progress. Following discussion, on motion of William A. Chernosky, the Society went on record as being in favor of such move, and it was decided to so advise the student association by letter.

Charles Phillips, in discussing the matter of high standards of milk supply in Temple, pointed out that three members of the original Bell County Milk Committee had died. Dr. Phillips recommended that the Society authorize the president to appoint new members to this committee.

M. W. Sherwood moved that the Society so authorize the president, and the motion carried.

The following officers were elected for 1945, by acclamation: president, R. R. Curtis; vice-president, W. J. Maxwell; secretary, O. B. Gober; board of censors, L. W. Pollok, V. M. Longmire and J. W. Pittman; delegate, A. C. Scott; alternate delegates, A. Ford Wolf, L. R. Talley and J. W. Pittman.

Brazoria County Society

December 8, 1944

(Reported by Brooks Stafford, Secretary)

Brazoria County Medical Society met December 8, at the Dow Hotel, Freeport, under the sponsorship of Dr. M. H. Thompson of Dow Magnesium Corporation Hospital, Freeport. A delicious dinner was served to seventeen members, one visitor, and members of the Woman's Auxiliary. Following the dinner, members of the Woman's Auxiliary repaired to the home of Mrs. Thompson where they held their own meeting.

A. A. Ledbetter of Houston, guest speaker, presented an address on the cardinal features of socialized medicine, calling attention to the present trends toward socialization in this country and counter measures which have been prepared by the medical profession. Following Dr. Ledbetter's address, an extended discussion of the subject was held.

William Holt moved that a committee be appointed to study various plans for counteracting the Wagner-Murray-Dingell bill pending in Congress, and that a plan be submitted to the A. M. A. and to the State Medical Association with a resolution suggesting that vigorous action be taken by these organizations to reach some definite and constructive conclusion regarding medical socialization. The members of the committee appointed for this purpose are William Holt, Robert C. Miller and Dr. Vogan. The committee was instructed to formulate the resolution referred to and a plan, and submit both at the next meeting.

Dallas County Society

November 9, 1944

(Reported by W. W. Fowler, Secretary)

Nephrotic Syndrome Commonly Observed in Diabetes—Paul Kimmelstein, Charlotte, North Carolina.

Carcinoma of the Prostate:

a. Treatment of Obstruction—Edward White, Dallas.
b. Treatment by Castration and Stilbestrol—Raworth Williams, Dallas.

Dallas County Medical Society met November 9, in the Medical Arts Auditorium, Dallas, with forty members present. David W. Carter, Jr., president, presided and the scientific program as given above was carried out.

The address of Dr. Kimmelstein was discussed by Robert M. Barton, A. J. Gill, Edward White and C. T. Ashworth.

The symposium on carcinoma of the prostate, presented by Edward White, was discussed by Jo C. Alexander, George M. Jones, R. E. Van Duzen and Joseph M. Hill.

November 30, 1944

Bile Pigment Excretion by Normal Infants—Leta N. Boswell and Golda Jean Fielder.

A Statistical Study of Carcinoma of the Esophagus—David G. Hubbard.

A Study of Infant and Maternal Mortality in Dallas (lantern slides)—Ralph Donnell and Francis Hood.

A Study of Electric Convulsive Therapy in Psychosis—George W. Jones and O. F. Kirkpatrick.

Dallas County Medical Society met in adjourned session from the regular meeting of November 23, with twenty-nine members present. David W. Carter, Jr., president, presided, and a scientific program was presented by the senior class of Southwestern Medical College, Dallas, as given above.

The paper of Leta N. Boswell and Golda Jean Fielder was discussed by Gladys J. Fashena and Donald Slaughter.

The paper of David Hubbard was discussed by C. O. Patterson, who presented a number of lantern slides covering the history of a patient treated for carcinoma of the esophagus, and illustrative roentgenograms. The paper was also discussed by W. F. Mengert and Jack G. Kerr.

The paper of Ralph Donnell and Francis Hood was illustrated by lantern slide charts showing comparative figures on infant and maternity mortality in the United States, Texas and Dallas. The paper was discussed by W. F. Mengert, Gladys Fashena and John G. Young.

The paper of George W. Jones and O. F. Kirkpatrick was discussed by F. T. Harrington, George M. Jones, Jay Waddell, H. Walton Cochran and G. A. Davidson.

Other Proceedings.—Secretary Fowler read a report of the public health committee, signed by J. H. Black, chairman, J. L. Goforth, M. O. Rouse, Davis Spangler, and O. T. Woods, recommending that the Society go on record as endorsing the establishment

of a social hygiene organization in Dallas, as an activity of the Council on Social Agencies, and supported by the War Chest, which would have for its purpose social hygiene education and the correlation of health activities in the city and county of Dallas. The proposed organization would devote itself to discussion of problems arising in the various health agencies, in health conditions in the city and county, so that activities might be coordinated and duplication of effort prevented in carrying on a continuous program of education in social hygiene.

Resolutions of condolence were adopted on the death of Dr. Benjamin Kinsell of Dallas.

On motion of G. E. Brereton, the Society voted its thanks and appreciation to members of the senior class of Southwestern Medical College for the excellent papers presented at the meeting and recommended that the idea be made an annual affair, and that the program committee for 1945 be so instructed.

Falls County Society

December 5, 1944

(Reported by J. W. Torbett, Sr., Secretary)

Falls County Medical Society met December 5, and elected the following officers for 1945: president, N. D. Buie; vice-president, T. S. Roach; secretary and treasurer, J. W. Torbett, Sr.; alternate delegate, J. I. Collier; censor, H. P. Curry.

The following committees were appointed: *legislative*, N. D. Buie and E. P. Hutchings, and M. A. Davison; *military-affairs*, E. P. Hutchings, H. B. Barnett and M. A. Davison.

Falls County Medical Society will hold monthly meetings during the year, with a dinner every third month.

Gray-Wheeler Counties Society

November 16, 1944

(Reported by H. L. Wilder, Secretary)

Clinical Case Reports:
Typhoid Fever—Karl W. Pieratt, Pampa.
Tumor of the Orbit—C. E. High, Pampa.
Coronary Thrombosis—Paul C. Christian, Pampa.
Highlights in the Treatment of Syphilis—John H. Lamb, Oklahoma City, Oklahoma.

Gray-Wheeler Counties Medical Society met November 16, at the Pampa Hospital, where members were guests of Drs. W. Purviance and Richard M. Brown, at a venison dinner with all the trimmings, which was served by Mrs. Davenport. Fourteen members were present, and greatly enjoyed the delicious dinner. Following the dinner the scientific program as given above was carried out.

The case of typhoid fever reported by Karl W. Pieratt occurred in a child of three and one-half years; the patient had not been out of the city of Pampa, and the case was interesting from that standpoint, since the city has excellent sewage, garbage disposal and meticulous inspection of its milk supply.

W. C. Jones reported having seen cases of paratyphoid A and B in the Stanolind camp, and R. D. Falkenstein also reported having seen cases of paratyphoid.

The case of orbital tumor occurred in a Negro woman, who had a swelling of the jaw with complete loss of vision on the same side. A roentgengogram revealed a tumor in the orbit, which probably had caused atrophy of the optic nerve.

The case of thrombosis reported by Paul O. Christian was a severe one in which recovery was occurring satisfactorily.

Members present greatly enjoy the lecture of John H. Lamb on syphilis, and the discussion following it was also interesting and instructive.

Henderson County Society

December 4, 1944

(Reported by D. Price, Secretary)

The following officers were re-elected to serve Henderson County Medical Society for 1945. at its meeting December 4: president, A. C. Horton, Brownsboro; vice-president, L. L. Cockerell, Athens; secretary-treasurer, Don Price, Athens; delegate, N. D. Geddie, Athens; alternate delegate, L. L. Cockerell, Athens.

The Society meets on the first Monday of each month.

Randall-Deaf Smith-Parmer-Castro-Oldham Counties Society

December 1, 1944

(Reported by Mayes Miller)

Penicillin—C. E. Donnell, Canyon.

Randall-Deaf Smith-Parmer-Castro-Oldham Counties Medical Society met December 1, in Canyon. The scientific program as given above was carried out.

The following officers were elected for 1945: president, Mayes Miller, Dimmitt; secretary-treasurer, R. E. Cogswell, Dimmitt (re-elected).

Smith County Society

December 14, 1944

(Reported by Wm. M. Bailey, Secretary)

Smith County Medical Society held its annual business meeting December 14, in the library of the Mother Francis Hospital, Tyler.

The Society unanimously adopted resolutions expressing itself in favor of moving the medical department of the University of Texas from Galveston to a city offering better clinical advantages and facilities, mentioning as possible locations either San Antonio or Houston.

A. L. Hathcock, Councilor of the Eleventh District, discussed medical legislation and asked the wishes of the Society as to whether a district meeting should be held to discuss legislative matters.

The Society gave consideration to the difficulties of travel and suggested to Councilor Hathcock that he ascertain the wishes of the different county societies composing the Eleventh District, and forward a resume of his findings to President H. F. Connally of the State Medical Association, assuring him that Smith County Medical Society stands behind the administration in all legislative matters.

The following officers were elected to serve Smith County Medical Society for 1945: president, E. D. Rice; vice-president, R. L. Marshall; secretary-treasurer, W. M. Bailey (re-elected); board of censors, J. J. Faust; delegate, T. M. Jarmon; and alternate delegate, E. W. Clawater.

Tom Green Eight County Society

November 6, 1944

(Reported by Victor E. Schulze, Secretary)

Recent Advances in Obstetrics—T. L. Husbands, San Angelo.
Early History of Medicine in San Angelo—F. T. McIntire, San Angelo.

Tom Green Eight County Medical Society met November 6, in the Indian Room of the Cactus Hotel, San Angelo, with eighteen physicians present. J. Marvin Rape, president, presided, and the program as given above was carried out.

T. L. Husbands, in discussing recent advances in obstetrics, advocated the parenteral use of peroxidine hydrochloride as a valuable adjunct in the management of nausea and vomiting of early pregnancy. He stated that although progesterone and vitamin E are recommended in the treatment of threatened abortion, statistics failed to establish the unequivocal merit of these medicinal agencies. He emphasized that the best treatment of eclampsia was its prevention by careful prenatal care, with attention particularly to diet and the prevention of excessive weight gain. Of obstetrical analgesics, he gave preference to demerol with scopolamine. He expressed preference for inhalation anesthesia to caudal block, reserving the latter for cases of breech presentation and certain primipara. Preference was expressed for er-

gonovine over other oxytocics. The advantages of early ambulation in obstetric cases was referred to.

The paper was discussed by R. L. Powers, F. T. McIntire, Dr. Strauss, and J. H. Smith.

F. T. McIntire, in reviewing the early history of medicine in San Angelo, quoted excerpts from an address delivered by Dr. S. L. Smith at a meeting of the San Angelo District Medical Society on October 14, 1902. Concerning the purpose of medical organizations, Dr. Smith's comments, at that date, are significant: "Of course, medical societies are neither a specific for all personal deficiencies nor a panacea for all professional scores. Spending a few hours once a month will not convert a willing doer of evil into a professional Chesterfield or give him the polish and value of refined gold or lend him a conscience like Milton's but it will serve as an intellectual and social exchange where one may get new combinations of ideas and fresh straws of knowledge. Besides the individual benefits accruing to the members, a genuine professional spirit is generated that constantly tends to minimize all that is unprofessional.

"The general public however, look upon the organization for a medical society as inimical to their interests and entertain the belief that it exists for the pecuniary advancement of its members, just as all amalgamated associations and trade unions do for working men and we must endeavor to correct this impression by advocation of sanitary reform, the purification of our water supply by filtration, the building of a county hospital for the reception of the invalid poor, and such other questions of professional and public interest as may from time to time be suggested."

Other Proceedings.—Secretary Schulze, member of the Public Relations Committee of the State Medical Association, stated that arrangements had been made for broadcasts over KGKL of radio transcriptions of health programs prepared by the American Medical Association, such programs to be presented each Tuesday evening at 8:15, under the sponsorship of Sykes Pharmacy and the sponsor's commercial to be broadcast are subject to approval of the committee and must be in keeping with ethical standards.

December 4, 1944

Symposium on the Medical Aspects of Flying:
- Effects of Anoxia—Lt. Col. Joe T. Gilbert, M. C.
- Experiences as a Flight Surgeon in the Eighth Air Corps in England—Major Roy J. Allen, M. C.
- Field Ambulance Service in Crashes—Capt. Robert R. Jones, M. C.
- Convalescent Training Program—Capt. R. A. Westsmith, M. C.
- Medical Care of Dependents of Air Corps Personnel—Capt. I. W. Luke, M. C.
- Bends and Chokes—Capt. R. A. McLane, M. C.
- Routine Army Treatment of Malaria, Syphilis and Gonorrhea —Capt. P. B. Patton, M. C.

Tom Green Eight County Medical Society met December 4, at Goodfellow Field, with Lt. Col. Joe T. Gilbert and staff as hosts, with nineteen members of the Society and one visitor present. Following a steak dinner, a symposium on the medical aspects of flying was presented by the medical staff of Goodfellow Field, as indicated above, with Lt. Col. Joe T. Gilbert presiding.

Captain Jones described the procedure by which field ambulances are directed to airplane crashes.

Captain Luke discussed the policies of Goodfellow Field with regard to medical care of dependens of the personnel of the field.

R. E. Windham, San Angelo, Councilor of the Fourth District, gave a brief report of the joint meeting of the Executive Council with the Public Relations Committee of the State Medical Association at Fort Worth, which was attended by him and Dr. Schulze, a regional adviser of the Committee.

Officers for 1945 were elected, as follows: president, Wm. J. Swann, Sterling City; vice-president, Victor E. Schulze, San Angelo, secretary, T. L. Husbands, San Angelo; treasurer, J. B. McKnight, Sanatorium; delegate, Victor E. Schulze; alternate delegate, F. T. McIntire, San Angelo.

Councilor R. E. Windham urged members of the Society to seriously contemplate the problems confronting the medical profession and congratulated the Society on its selection of officers for 1945.

J. Marvin Rape and Victor E. Schulze, retiring president and secretary, thanked the members for their cooperation during their respective terms of office.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Society

November 16, 1944

Treatment of Pilonidal Sinus—Major Paul M. Mutschmann, Chief of Surgery, AAF Regional Hospital, Pyote.

Medical Problems Involving Flying Personnel—Capt. John R. Mast, Flight Surgeon, Midland Army Air Field.

Psychological Research Project at Midland Army Air Field—Major Edward H. Kamp, Chief of Department of Psychological Research, MAAF.

Treatment of Fractures of the Os Calcis (motion picture)—shown through the courtesy of Otto W. Young, Minneapolis, Minnesota.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society held a joint meeting with medical officers of the three Army Air fields, at the Station Hospital, Midland Army Air Field, November 16. Col. Charles H. Dowman, commanding officer, gave the address of welcome at a dinner preceding the scientific program. The medical officers were present from the Army Air Field Regional Hospital at Poyte and the Station Hospitals at Big Spring and Midland. Hosts for the meeting were Lt. Col E. G. Benjamin and the medical staff of the Midland Army Air Field.

The scientific program as given above was carried out.

Grayson County Society

December 12, 1944

A Discussion of Improvement in Processing of Blood Plasma—J. M. Hill, Director, William Buchanan Blood Foundation, Dallas.

Fracture Treatment—Arthur Gleckler, Sherman.

Grayson County Medical Society met December 12, at the Hotel Denison, Denison. The scientific program as given above was carried out. Dr. Hill asserted that the American public will have to decide in the postwar period who is to administer blood banks, the government or the Red Cross. He stated that pressure is being brought by some agencies to make blood banks available on a socialized scheme, free of charge to everyone, and that the same people are backing it that back socialized medicine. He pointed out that the Buchanan Blood Bank has been in operation at least on a limited scale since 1939, a long time before the government began to administer such plans. He further emphasized that, at the present time, 10 per cent of the plasma collected by the Foundation goes to charity, with the remainder available to medical institutions anywhere in Texas. He predicted that the Foundation could continue to meet the needs of Grayson County and Texas after the war.

Dr. Hill stated easy preservation, solubility and the fact that refrigeration is unnecessary as reasons for processing plasma. He also stated that plasma is the most desirable therapy in cases of shock and kidney disorder. He pointed out that plasma is kept in a vacuum packed bottle topped by a rubber stopper. This bottle is inserted in still another tin container before it is shipped. He asserted that the plasma can be administered within two minutes after the container is received at the hospital. In answer to a question regarding dosage, he replied that it was general practice at the Foundation to administer plasma in cases in which it was indicated until the patient either showed marked improvement or the patient died.

Officers for 1945 were elected as follows: president,

S. O. Levin, Denison; vice-president, Herman Klapproth, Sherman; secretary-treasurer, Lois Norman, Sherman; delegate, W. A. Lee, Denison; alternate delegate, A. L. Ridings, Sherman; censor, Max R. Woodward.

Wharton-Jackson-Matagorda-Fort Bend Counties Society

December 12, 1944

(Reported by B. F. Roche, Retiring Secretary)

Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society met December 12, and elected the following officers for 1945: president, T. M. Neal, Wharton; vice-president, R. G. Johnson, New Gulf; secretary and treasurer, Vernon Black, Wharton; delegate, R. G. Johnson, New Gulf (re-elected); alternate delegate, W. M. Blair, Wharton (re-elected).

Northwest Texas District Medical Society

November 21, 1944

Vertigo—W. G. Harrison, Jr., Wichita Falls.
Caudal Analgesia—J. C. Duff, Anson.
Upper Abdominal Pain Following Cholecystectomy—Joe R. Wise, Fort Worth.
The Static Foot—Elias Margo, Oklahoma City, Oklahoma.
Trends Toward Conservatism in Renal Survery—James P. Bridges, Abilene. (Read by Jack Crow in enforced absence of Dr. Bridges.)
The Ruptured Intervertebral Disk—Robert L. Sewell, Fort Worth.
Present Day Treatment of Tetanus: Possible Effects of Penicillin—Richard L. Nelson, Wichita Falls.

The Northwest Texas District Medical Society held its fall meeting November 21, at Wichita Falls, with a very good attendance from the entire District. B. B. Griffin, Graham, president, presided.

O. B. Kiel, Wichita Falls, Councilor of the Thirteenth District, made a brief talk, following which the scientific program as given above was carried out.

W. G. Harrison, in discussing vertigo, mentioned the unusual fact that apparently the condition appears in epidemic or infectious type associated with nasal infection.

J. C. Duff, in discussing caudal analgesia, reported his experience in more than 40 cases, in practically all of which it had proved successful. He described both the needle and catheter technique, expressing personal preference for the induction with a needle. He emphasized that no more than 8 cc. of an anesthetic solution should be injected as the initial dose as a test for accuracy of position after which subsequent injections are made at intervals as necessary, to prolong the analgesia, in some cases, for several hours. The paper was discussed by W. G. Phillips and W. O. Ott of Fort Worth.

Joe R. Wise, in discussing the subject of upper abdominal pain following cholecystectomy, reported cases in which stones were found in the stump of the cystic duct as the causative factor but emphasized that sometimes a second operation fails to reveal the cause. He urged the need for careful exploration during cholecystectomy of not only the common bile duct but also the hepatic ducts. The paper was discussed by W. E. Crump, Wichita Falls.

Elias Margo, guest speaker from Oklahoma City, gave an interesting discusion of the many symptoms produced by faulty weight-bearing, particularly backache, many of which can be readily corrected with simple orthopedic shoe inserts or pads to effect better distribution of the weight. Dr. Margo's address was discussed by C. F. Clayton of Fort Worth.

The paper of James P. Bridges on conservatism in renal surgery emphasized the desirability of careful renal studies before nephrectomy is done. It was pointed out that less kidney operations are necessary with better urological treatment of deformities and lesions of the genitourinary tract. The technique of nephrectomy in cases in which it is indicated was outlined. The paper was discussed by O. T. Kimbrough.

Robert L. Sewell, in discussing ruptured intervertebral disk, asserted that this condition is often overlooked in that the symptoms produced by it other than pain are not generally given consideration. Some patients will make complete recovery without removal of a displaced or ruptured disk. The operation of lumbar disk removal is spectacular in its results when an accurate location of ruptured disk has been determined.

Elias Margo and C. F. Clayton, who discussed the paper, both emphasized that an extended period of time should be allowed before operation is done, sometimes as long as a year.

Richard L. Nelson, in discussing the treatment of tetanus and possible effects of penicillin in a case of tetanus, reported a case occurring in a girl, 6 years of age, who was suffering severe tetanic convulsions when first seen. She was fed by an indwelling tube, and convulsions were controlled by enormous doses of barbiturates. It was thought that penicillin may have played an important part in her recovery, either in the curing of a complicating pneumonia or by direct action on the tetanus organism. The paper received extended discussion, opened by W. M. Taylor of Goree.

Dr. Nelson, in closing the discussion, stated that the penicillin may not have had a direct action on the tetanus infection.

At the noon luncheon, R. B. Anderson, Fort Worth, Assistant Secretary and Chairman of the Public Relations Committee of the State Medical Association, was the principal speaker. Dr. Anderson discussed the legislative program of the State Medical Association for 1945, and urged active support of the program by not only county medical societies composing the District but individual members as well. He also discussed briefly the work of the Public Relations Committee and emphasized that the accomplishments of that Committee would depend entirely upon the cooperative efforts given by the entire membership of the Association.

During a business session, the following officers were elected for 1945: president, J. W. Foy, Seymour; vice-president, M. L. Stubblefield, Gorman; secretary, Joe R. Wise, Fort Worth.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Bowie-Miller Counties Auxiliary met November 24, at the home of Mrs. H. E. Murry, Texarkana, with Mrs. L. H. Lanier and Mrs. Joe Tyson as hostesses.

Mrs. William Hibbitts presided in the absence of the president, Mrs. J. T. Robison.

Mrs. Ben Tucker reviewed "The Book Nobody Knows," by Bruce Barton.

Announcement was made that a Christmas dinner would be held at the Hotel McCartner, December 15, in conjunction with members of the Bowie-Miller Counties Medical Society, at which Dr. Guy Witt, neuropsychiatrist of Dallas will be the featured speaker.

During a social hour, refreshments were served, with Mrs. L. J. Kosminsky and Mrs. William Hibbitts presiding.

Hunt-Rockwall-Rains Counties Auxiliary held an annual banquet December 5, in the All-American room of the Washington Hotel, Greenville, honoring members of the Hunt-Rockwall-Rains Counties Medical Society.

Mrs. E. R. Hayes, vice-president, presided in the absence of Mrs. J. S. Cooper, president, and presented Rev. Boyd I. DeVore, pastor of the Wesley Methodist Church, who was the principal speaker. Reverend DeVore stressed the relationship of doctors and ministers in the problems of today and for the postwar period.

Dr. W. C. Morrow responded to the address of welcome extended to members of the Hunt-Rockwall-Rains Counties Medical Society. The occasion was attended by forty-eight members and guests.

Liberty-Chambers Counties Auxiliary celebrated State President's Day with a luncheon honoring Mrs. S. E. Thompson of Kerrville, at the home of Mrs. A. L. Delaney, Liberty, November 28.

A round-table discussion was held which Mrs. Thompson conducted. Mrs. Thompson stressed Red Cross work, the support of all funds of the State Auxiliary, aid to the Cadet Nurses Corp Committee, and urged members to be informed on all legislation of interest to the medical profession, and especially to oppose the socialization of medicine. Her message was inspiring and greatly appreciated by those present.

Other guests included Mrs. W. S. Red, Jr., Houston, and Mrs. Jack Bartell, Conroe.—Mrs. R. C. Bellamy, Secretary.

BOOK NOTES

[1]**A Manual of Physical Therapy.** By Richard Kovacs, M. D., Professor of Physical Therapy, New York Polyclinic Medical School and Hospital; Attending Physical Therapist, Manhattan State, Harlem Valley State, Columbus, and West State Hospital. Third edition, thoroughly revised. Illustrated with 118 engravings. Cloth, 309 pages. Philadelphia, Lea & Febiger, 1944.

Since time immemorial, the effect of physical forces and physical agents on the living organism has been realized, accepted, and utilized in various ways for the comfort and well-being of mankind. Before chemical discoveries and utilizations, many forms of physical forces were in use. These consisted of rest, heat, cold, and many local methods which ofttimes were mixed with mysticism. As time has progressed, the investigation of these physical forces has led to more accurate and scientific application of these various aids to comfort. The advances in physics and in chemistry have allowed an evaluation to be made in a true clinical appreciation. Consequently, it is no surprise when the application of the various physical agents to the living organism have become a very definite part of the medical profession.

It has been the specific purpose in Dr. Kovac's book to give these various physical efforts in their proper relationships as we know them today. Each type of applied physical therapy is described in basic details with the idea of giving the fundamental purposes, the application, and the scientific reasons for the various physical agents. The book presents the subject in a manner which can be particularly adapted for clinical use with the idea of its application along those lines. At the end of each chapter is a set of questions which allows the student to check his own information on the subject just covered. It offers a very good means for self-education.

The book is definitely a valuable adjunct in the study and in the administration of physical therapy from a clinical standpoint. It obviously is not a textbook on any one detailed physical subject, and it is not intended to be so. Any one who is interested in physical therapy can profit by reading the book carefully and by applying the basic methods recommended.

[1]Reviewed by G. W. N. Eggers, M. D., Department of Surgery, Orthopedic Division, University of Texas School of Medicine, Galveston, Texas.

[2]**The Mind of the Injured Man.** By Joseph L. Fetterman, M. A., M. D. Assistant Clinical Professor of Nervous Diseases, Western Reserve University Schoool of Medicine, Cleveland, Ohio. Cloth, 260 pages, 28 illustrations. Price, $4.00. Chicago, Industrial Medicine Book Company, 1943.

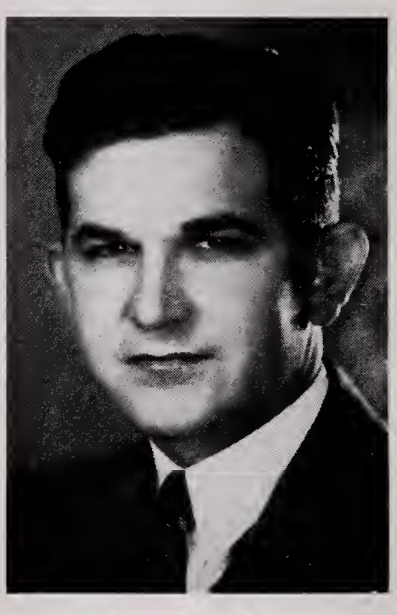
It is with some reluctance that I give a rather unfavorable report on the book entitled "The Mind of the Injured Man," by Fetterman. The book is exceedingly interesting reading, and several of the neurophsychiatrists in this hospital, as well as myself, read it throughout. It was also discussed at one of our neuropsychiatric meetings. Within its 260 pages, we find an abstract on many different neuropsychiatric subjects: anatomy, psychoses, neuroanatomy, the neuroses, and the various neurological conditions due both to trauma and otherwise.

It is noted that the book is dedicated to those who come in contact with the neurotic patient, not only physicians, but employers, attorneys, and adjusters. I should say that this book should not be especially recommended to those individuals, because the subject, being abstract, is so great that it cannot be adequately covered and might lead to a wrong concept of the subject, especially to the layman.

[2]Reviewed by Guy C. Randall, Lt. Col., M. C., Chief, Neuropsychiatric Branch, McCloskey General Hospital, Temple, Texas.

DEATHS

Lt. Commdr. George Little Butler of Beaumont, Texas, prior to his entry in the armed services, was killed in action in the South Pacific war theater, July 21, 1944.



DR. GEORGE LITTLE BUTLER

Dr. Butler was born July 8, 1910, in Ulmer, Texas, the son of John Malcolm and Mary Catherine Butler. His academic education was received in the public schools of Beaumont, the Lamar Junior College, Beaumont, and the University of Texas, Austin, which he attended two years. His medical education was obtained in the medical department of the University of Texas, Galveston, from which he was graduated in 1934. After his graduation he served an internship for two years in Jefferson Davis Hospital, Houston, following which he was resident physician for one and one-half years at the Hospital for Ruptured and

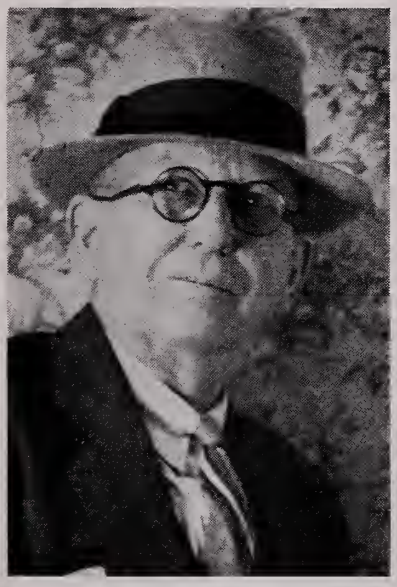
Crippled, New York City. In 1939, he located in Beaumont for the practice of surgery. He was in active practice in this location until he entered the armed services in April, 1941, where he served with distinction until his death in the service of his country. He was decorated for bravery during his service and had been mentioned in press dispatches as one of the medical officers who went ashore with the first wave of invading forces. It is believed that he lost his life on Guam Island.

Dr. Butler was a member of the Jefferson County Medical Society, State Medical Association and American Medical Association after his location in Beaumont until his death. He was a Military Member of Jefferson County Medical Society and State Medical Association at the time of his death. He served Jefferson County Medical Society as secretary in 1940-1941. He was a member of the Episcopal Church. Dr. Butler's death is one of the many war casualties robbing the Texas medical profession of some of its most promising physicians and surgeons.

Dr. Butler was married July 20, 1940, to Miss Ouida Lynn Petty at Alexandria, Louisiana. He is survived by his wife and one daughter, Carol Lynn Butler. He is also survived by six sisters, Mrs. R. W. Thornburg, Bessemer City, North Carolina; Mrs. J. F. Winton, Mrs. H. R. Hancock, Miss Ruth O. Butler, all of Beaumont; Mrs. W. J. Krebs, Corpus Christi; Mrs. J. G. Foyle, Orange; and two brothers, N. M. Butler, Port Arthur, and W. T. Butler, Beaumont.

Dr. D. Columbus Hyder of Donna, Texas, died October 8, 1944, of carcinoma of the liver.

Dr. Hyder was born November 4, 1875, in Booneville, Mississippi, the son of Charles Richard and Louise Belle (Holley) Hyder. His academic education was received in the Oakland Normal Institute, Mississippi, and the East Texas Normal College, Commerce, Texas, from which he was graduated with the B. A. degree, in 1903 and B. S. degree in 1904. His medical education was obtained in the University of the South, Sewanee, Tennessee, from which he was graduated in 1909. He began the practice of medicine at Commerce, Texas, where he remained until 1917, at which time he entered the medical corps of the U. S. Army as a first lieutenant. He was promoted to the rank of captain in 1918 and served his country twenty-seven and one-half months during the first World War. After the war, he located in Memphis, Texas, in 1920, where he was in practice until 1939. There he owned and operated his own hospital from 1928 until 1939. He then removed to Donna, Texas, where he was in practice until his death.



DR. D. C. HYDER

Dr. Hyder was a member continuously in good standing of the State Medical Association and American Medical Association from 1916 until his death, through the Hunt County Medical Society while residing at Commerce and through the Childress-Collingsworth-Hall County Medical Society during his practice at Memphis, and the Hidalgo-Starr County Medical Society after his location in Donna. He served Childress-Collingsworth-Hall Counties Medical Society as secretary for two terms. Despite an extensive practice he found time to take an active part in the civic and church life of the communities in which he lived. He was an active member of the Baptist Church.

Dr. Hyder was married twice. Two sons and one daughter survive his first marriage, Dr. Prentise L. Hyder, Corpus Christi, D. C. Hyder, Jr., and Mrs. Oleta Belle Smith, Long Beach, California.

Dr. Hyder was married January 1, 1939, to Miss Iva Marie Sturdevant of Memphis, Texas. Two children were born to this union. A son, Charles Richard Hyder, II, died November 25, 1942. He is survived by his wife and one daughter by his second marriage, Anna Louise Hyder, age nine months. He is also survived by three brothers, Dr. R. C. Hyder, Los Angeles, California, J. J. Hyder, Tucumcari, New Mexico, and Clifton Hyder, Alice, Texas; and five sisters, Mrs. Sula Morgan, Norton, Texas, Mrs. Mildred Dekle, Lagon, New Mexico, Mrs. Lela Dillingham, Dallas, Texas, Mrs. Neola Hones, Portales, New Mexico, and Mrs. Myrtle White, Tucumcari, New Mexico.

Dr. Floyd Franklin Kirby of Waco, Texas, died November 11, 1944, in a Waco Hospital.

Dr. Kirby was born June 27, 1890, in Lometa, Texas, the son of Mr. and Mrs. M. F. Kirby. His academic education was received in the Lometa public schools and the Draughon's Business College, Dallas. He first taught school for two years, following which he was in the drug business. His medical education was obtained in the University of Louisville from which he was graduated in 1917. Following his graduation he served an internship at Scott and White Hospital, Temple, after which he was a member of the staff of that institution for five and one-half years. In January, 1923, he removed to Waco, where he became associated with the late Dr. C. L. Goodall. He later was a founder member of the Waco Medical and Surgical Clinic of which group he was the senior surgeon at the time of his death. Duriing his years of practice he had taken postgraduate work several times at Rochester, Minnesota, and in New York. He was an accomplished surgeon and for many years had had an extensive surgical practice.

DR. F. F. KIRBY

Dr. Kirby was a member throughout his professional life of the State Medical Association and American Medical Association through the Bell County Medical Society while residing in Temple,

and the MeLennan County Medical Society after his removal to Waco. He was a member of the Twelfth District Medical Society and the Southern Medical Association. He had been a member of the staff of both Hillcrest Memorial Hospital and Providence Sanitarium in Waco. He was urologist for the Cotton Belt Railroad. He was a member of the Phi Chi medical fraternity. He was a Mason and a member of the Karem Shrine. He had served as a member of the appeal board of the Selective Service System. Dr. Kirby's chief hobby was deer hunting. He was an outstanding golfer and was greatly interested in his cattle ranch in Bosque County. His disposition was kind, unassuming and retiring. He had a host of friends who mourn his untimely death.

Dr. Kirby was married September 17, 1912, to Miss Bess Thomson of Lometa, Texas, who survives him. Mrs. Kirby served as president of the Woman's Auxiliary to the State Medical Association of Texas in 1938-1939. He is also survived by a daughter, Mrs. Thomas C. Bain, nee Ruth Thomson Kirby; a granddaughter, Betsy Ruth Bain; his mother, Mrs. M. F. Kirby, Lometa; one brother, Dr. O. A. Kirby, Lometa; and two sisters, Mrs. W. E. Everett, Lometa, and Miss Matie Kirby, Temple.

Dr. Henry F. Kuehne of Coupland, Texas, died July 7, 1944, in a Taylor, Texas, Hospital, of carcinoma of the prostate.

Dr. Kuehne was born September 14, 1874, in Hallettsville, Lavaca County, Texas, the son of F. F. and Lydia (Melchior) Kuehne. His academic education was received in the University of Texas, Austin, from which he was graduated with a B. S. degree in 1903. His medical education was received in the Baylor University College of Medicine, Dallas, from which he was graduated in 1906. After his graduation he served one year as instructor in histology in the Baylor University College of Medicine. He then spent one year in postgraduate study in the University of Berlin, Germany. His internship was served in Baylor University Hospital, Dallas.

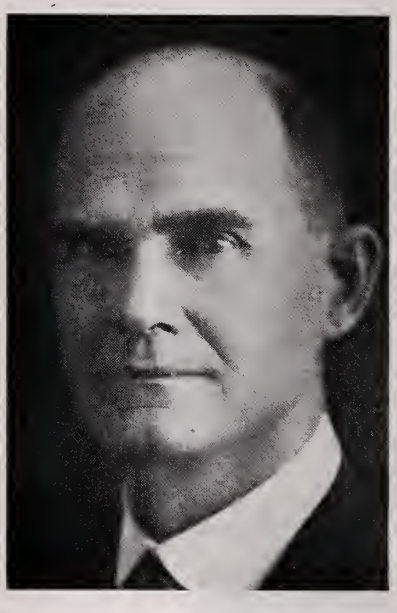
Dr. Kuehne began the practice of medicine in Walberg, Texas, in 1908, where he remained until 1915. He then lived and practiced at Coupland, Texas, from 1917 to 1943, when he was compelled to retire because of ill health.

Dr. Kuehne was a member during his professional life of the State Medical Association and American Medical Association through the Dallas County Medical Society while in Dallas, and through the Williamson County Medical Society during his residence in Coupland. He was a member of the staff of the Stromberg Clinic and Hospital, Taylor. He was a member of the Evangelical Church, and a Knights Templar. In addition to a large rural practice he found time to take an active part in the civic life of his community. He served twenty-seven years as school trustee. He was especially interested in better educational advantages and progressive farming. He was referred to on the occasion of his death by the secretary of his Society as an unusually kind man who spent many hours driving over bad roads in inclement weather to administer to the needs of the people of his community, and that his passing will be a great loss to the people of his community and to the Williamson County Medical Society as well as to his family.

Dr. Kuehne was married January 31, 1907, to Miss Pansy Alexander in Austin, Texas. His wife died November 22, 1943. He is survived by four daughters, Mrs. Margaret Youngquist, Austin; Mrs. Charles R. Barden and Mrs. Ralph Barker, Abilene, and Mrs. L. S. Lannen, Taylor; and one son, Sgt. Henry Kuehne, Jr., Army Air Force, Miami, Florida. He is also survived by five brothers, Dr. J. M. Kuehne, E. B. Kuehne, and William E. Kuehne, all of Austin; Herman Kuehne and Ferdinand Kuehne, both of Dallas; and three sisters, Mrs. E. W. Winkler and Mrs. Otto Frentrup, both of Austin, and Miss Helen Kuehne, Dallas.

Dr. Albert Searce Morton of Bay City, Texas, died October 18, 1944, at his home, of cerebral hemorrhage.

Dr. Morton was born November 4, 1873, in Anderson County, Kentucky, the son of William H. and Sallie M. Morton. His preliminary education was received in the schools of his community and the Wesleyan College, Kentucky. His medical education was obtained in the Louisville Medical College, from which he was graduated in 1897. After his graduation he practiced in Fisherville and Waddy, Kentucky, before his location in Bay City, Texas, in 1901, which was his home for the remainder of his professional life.



DR. A. S. MORTON

Dr. Morton had been a member continuously of the State Medical Association and the American Medical Association from 1905 to 1942, at which time ill health compelled him to restrict his activities, although he had continued in practice until his final illness and death. He served the Matagorda County Medical Society as president in 1934, and was secretary of that society in the year 1936-1937. His period of practice covered the era from horse and buggy days over bad roads, at times being compelled to ride horseback, until the present. He was highly beloved in the community and section which he had served long and capably as a family physician. He was a Mason and a member of El Mina Shrine Temple, Galveston.

Dr. Morton was married July 12, 1917, in Millville, New Jersey, to Miss Genevieve Sharpless. He is survived by his wife; one daughter, Mary Anna; a sister Miss Pearl Morton, Bay City; and a brother, Stanley Morton, Con Can, Texas.

Dr. James Roller McMurray of Galveston, Texas, died October 27, 1944, in a Galveston hospital, of osteomyelitis of the mandible.

Dr. McMurray was born July 16, 1902, in Ennis, Texas, the son of Mr. and Mrs. J. R. McMurray. His academic education was received in the public schools of Ennis and the University of Texas, Austin, from which he was graduated with a B. A. degree in 1923. His medical education was obtained in the medical department of the University of Texas, Galveston, from which he was graduated in 1926. He then served an internship in the John Sealy Hospital, Galveston, following which he located in Galveston for general practice. He served as instructor and associate professor in pediatrics in the University of Texas School of Medicine from 1927 to 1938, when ill health compelled him to give up teaching. He was a member of the staffs of John Sealy Hospital and St. Mary's Infirmary. He served also as physi-

cian for the Lasker Home for Homeless Children from 1929 to 1938.

Dr. McMurray was a member continuously in good standing of the Galveston County Medical Society, State Medical Association and American Medical Association from 1937 until his death. He was a member of the Delta Sigma Phi academic fraternity, the Alpha Kappa Kappa medical fraternity and the Alpha Omega Alpha honorary medical fraternity. He was highly esteemed by his medical associates and held in the highest regard by all who knew him. He will be sincerely missed.

Dr. McMurray was married to Miss Marian White in Fort Worth, December 26, 1924. He is survived by his wife and one daughter, Margaret, age 13. He is also survived by his parents, Mr. and Mrs. J. R. McMurray, Ennis; and two brothers, Lt. Col. Crawford A. McMurray, El Paso, and J. Richard McMurray, Scarsdale, New York.

Dr. Henry W. Grady Shytles of Abilene, Texas, died November 17, 1944, of coronary occlusion while en route in an ambulance to the hospital.

Dr. Shytles was born March 31, 1891, in Falcon, Tennessee, the son of Dr. and Mrs. W. M. Shytles. He came to Texas with his parents at an early age and was reared in the community of Venus, Johnson, County, and at Waxahachie. His academic education was received in Trinity University at Waxahachie. His medical education was obtained in the University of Tennessee, Memphis, from which he was graduated in 1914. After his graduation he served an internship in the City-County Hospital, Fort Worth. He then served as assistant city physician for Fort Worth. He began the practice of medicine at Venus, Texas, but on the entry of the United States into World War I, he accepted a commission in the U. S. Public Health Service and in this capacity inspected Army camps throughout the country. At the conclusion of World War I, Dr. Shytles accepted the position of physician and surgeon for the Pima Indian reservation at Phoenix, Arizona, which position he held for three years. He then located in Abilene, Texas, where he carried on an extensive practice for fourteen years and became superintendent and chief surgeon of the Snyder General Hospital. Iu 1943, he was appointed a captain in the medical corps of the Army of the United States, and was stationed for four months at Carlisle Barracks, Pennsylvania, following which he was discharged from Army service because of physical disability. Despite this physical disability, Dr. Shytles located in Abilene, Texas, and carried on an active practice until his death.

Dr. Shytles was a member throughout his professional life of the State Medical Association and American Medical Association through the county medical societies of his various places of residence. He served the Taylor County Medical Society as president in 1930. He served Scurry-Dickens-Kent-Garza-Borden-King-Stonewall Counties Medical Society as president from 1939 to 1943, inclusive. He was chairman of the Section on Surgery of the State Medical Association in 1942. He had limited his practice to surgery for a number of years. While residing at Snyder, Texas, he served as chairman of the Procurement and Assignment Advisory Committee for that area, and in this capacity was so desirous of serving his country during the present war that his confreres agreed, against their better judgment, to permit him to be made available for military service.

Dr. Shytles took an active part in the civic life of the communities in which he lived. He was a member of the Presbyterian Church, a Mason, a Knights Templar, and a member of the Shrine. He was a Rotarian. His death will be sincerely mourned by the large clientele he served during his years of practice, as well as by his medical associates.

Dr. Shytles was married November 24, 1914, to Miss Eula Powell of Terrell, Texas. He is survived by his wife; two sons, Flight Officer Powell Shytles, U. S. A. Air Corps, Kansas City, and George Preston Shytles, a high school student in Abilene; and his mother, Mrs. W. M. Shytles, Abilene. A third son, Lt. Grady Shytles, Jr., Air Corps, was killed in an airplane crash Jan. 2, 1945, in Fresno, California.

Commander Judson Ludwell Taylor, M. C., U. S. N., Retired, Seventy-Eighth President of the State Medical Association of Texas, died suddenly November 28, 1944, at his home in Houston, Texas, of coronary occlusion.

Dr. Taylor was born August 5, 1881, in New Waverly, Texas, the son of Byron Ludwell and Charlotte King Jone (Adams) Taylor. His father served as a captain in the Confederate Army during the Civil War, and after that war came to East Texas from Alabama. Dr. Taylor received his preliminary education in the public schools and the Texas Agricultural and Mechanical College, Bryan, which he attended in 1896 and 1897. He received the degree of Doctor of Medicine from the University of Texas School of Medicine, Galveston, in 1903, from which he graduated with honors. After his graduation he was appointed to the commission of Lieutenant (jg) in the medical corps of the U. S. Navy. He attended the U. S. Naval Medical School in Washington, D. C., in 1905 and 1906, following which he served with naval forces in Cuba during the Cuban Pacification period of 1906 and 1908, and was awarded the Cuban Pacification medal. In 1908 he was promoted to Lieutenant, and in 1912 was placed on the retired list because of physical disabilities received in the service. He began the practice of medicine and surgery in Houston in 1912, where he remained until 1915, when he was recalled to active duty in the medical corps of the Navy, in which he served throughout the first World War and for which service he was awarded the Victory Medal. He was promoted to the rank of Lieutenant Commander in 1918, and in August, 1919, was again placed on inactive status. In June, 1942, he was recalled to active duty in the Navy with the rank of Lieutenant Commander and was placed in charge of the Office of Naval Officer Procurement at Houston, in which capacity he was serving at the time of his death. In October, 1943, he was promoted to the rank of Commander, Medical Corps, U. S. Navy, Retired.

DR. JUDSON L. TAYLOR

Throughout his professional life, Dr. Taylor was a constant student and regularly took postgraduate work in his elected specialty of surgery. In 1914, he served as clinical assistant to Dr. J. Chalmers DaCosta, the Samuel D. Gross Professor of Surgery

for Jefferson Medical College. In the same year, he also served as clinical assistant to Dr. H. Augustus Wilson, Professor of Orthopedic Surgery, and Dr. William J. Taylor, Attending Surgeon to the Orthopedic Hospital and Infirmary for Mental and Nervous Diseases. From 1921 to 1923, he attended the Graduate School of Medicine, University of Pennsylvania, from which he received the degree of M. Sc. for Graduate Work in Surgery. He had limited his practice to surgery since 1912.

Dr. Taylor had been a member of the Harris County Medical Society, State Medical Association and American Medical Association continuously since 1915. He served Harris County Medical Society as president in 1934, and the State Medical Association of Texas as President in the Association year of 1942-1943. He served the State Medical Association of Texas as Councilor of the Ninth District from 1939 to 1941. He had an important part in the development of the Postgraduate Medical Assembly of South Texas, and for the past several years had given unstintedly of his time and ability in arranging programs for this organization. He had also served as a trustee of the Houston Academy of Medicine. His entire professional career was marked by exceptional leadership in medical affairs. During the first World War, after he had been recalled to active service in the medical corps of the Navy and while stationed at Houston, he organized a two hundred-fifty bed naval hospital, and personally supervised a drive to raise public funds to equip it. When the Armistice was signed in 1918, this entire equipment was turned over to the American Red Cross and, in turn, was donated to the formation of a city-county hospital, first located at Camp Logan, and later removed to the site of the old Jefferson Davis Hospital, the forerunner of the present magnificent Jefferson Davis Hospital of Houston.

Dr. Taylor was a Fellow of the American Medical Association, and of the American College of Surgeons, and a member of the Texas Surgical Society, the American Association for Surgery of Trauma, the Association of Military Surgeons, and the History of Science Society. He was a founder member of the American Board of Surgery. From 1915 to 1940, he was attending surgeon at the Memorial Hospital, Houston, following which he was consulting surgeon. He served as attending surgeon at the Jefferson Davis Hospital from 1923 to 1935, when he became consulting surgeon. From 1924 to 1929, he was attending surgeon of the Methodist Hospital, following which he became consulting surgeon. He was appointed chief of staff of the Arabia Temple's Crippled Children's Hospital in 1922, and had been chief of staff emeritus of that institution since 1930. From 1924 to 1934, he served as attending surgeon of the Hermann Hospital, and was surgeon in chief of that institution when he died. He had been chief surgeon of the Southern Pacific Hospital since 1939, and of the Southern Pacific lines in Texas and Louisiana for the same period. From 1931 to 1943, he was professor of general and oral surgery at the Texas Dental College, Houston. Since 1943, he had served as supervisor of hospital instruction at the University of Texas School of Dentistry, Houston, from which position he resigned a short while before his death, to accept an appointment by the Governor of Texas to the Board of Regents of the University of Texas, on November 15, 1944. He had served as lecturer in surgery at the University of Texas School of Medicine, Galveston, and as professor of surgery and chairman of the department of surgery, Baylor University College of Medicine, Houston. In 1944, he was appointed surgeon to the M. D. Anderson Hospital for Cancer Research, which position he resigned to accept a place on the Board of Regents of the State University.

While Dr. Taylor was not a prolific medical writer, he made several important contributions to surgical literature and his discussions were those of the scholar and thinker.

In addition to an extended surgical practice, and his manifold professional obligations, he was active in the civic, cultural and social life of Houston. He served as president of the Maternal Health Center, Houston, from 1936 to 1943; as medical director of the Birth Control League of Texas from 1938 to 1941; and the Texas League for Planned Parenthood from 1941 to 1943. Since 1943, he had been a member of the executive committee, Harris County Chapter, the National Foundation of Infantile Paralysis. He had also served as a member of the board of directors of the Union National Bank, Houston. He found time, in spite of his many professional obligations, at the end of his distinguished career to accept leadership in the formation of a blood plasma bank for civilian defense to serve the entire Gulf Coast area. He was a member of the Houston Club and Houston Country Club, The Tejas, and The Bayou.

At the conclusion of his term as president of the State Medical Association of Texas in May, 1943, Dr. and Mrs. Taylor established two endowment funds for the Library of the State Medical Association of Texas, of $1,000 each, honoring the brother of Dr. Taylor by naming one of the funds, "Dr. Martin Junius Taylor Fund," and the other in memory of Mrs. Taylor's mother and father by naming it "The Mr. and Mrs. William Thomas Carter Memorial Fund."

Dr. Taylor's many accomplishments during his professional career were attained in a quiet manner and masterly dignity that endeared him to his professional associates and all with whom he came in contact. The editorial in the TEXAS STATE JOURNAL OF MEDICINE, announcing his accession to the presidency of the Association, was closed with the following statement, which is clearly descriptive of Dr. Taylor's character and personality: "Texas doctors will learn to know him intimately throughout the coming year and they will find him as one of his close friends has expressed it, a 'clinical picture of a gentleman'."

Dr. Taylor was married March 22, 1904, to Miss Jessie Gertrude Carter of Houston. He is survived by his wife; two daughters, Mrs. Gertrude Taylor Otto, Boerne, and Mrs. Dorothy Taylor Binz, Houston; six grandchildren; a brother, Dr. Martin Junius Taylor, Houston, and a sister, Mrs. Jack Thomas, San Marcos.

Dr. Edwin Toutant Powell of San Antonio, Texas, died October 26, 1944, at his home, following severe burns.

Dr. Powell was born September 14, 1861, in Lafayette, Georgia, in which state he received his academic education. His medical education was obtained in the University of Louisville, from which he was graduated in 1890. He practiced medicine for eighteen years in Magazine, Arkansas, prior to his location in Texas. He had lived and practiced at Moore, San Marcos and Gillett, Texas, before locating in San Antonio. He was retired at the time of his death.

Dr. Powell was a member for many years of the State Medical Association and American Medical Association after his removal to Texas, first through LaSalle-Frio Counties Medical Society and later through the Karnes County Medical Society and, after his removal to San Antonio, through the Bexar County Medical Society. He was a member of the Baptist Church, a Scottish Rite Mason and a member of Alzafar Shrine.

Dr. Powell is survived by two sons, A. P. Powell, San Antonio, and J. Bodine Powell, Harlingen, and a daughter, Miss Lucille Powell, San Antonio. His wife preceded him in death in 1927.

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EDITORIAL OFFICES: 1404 W. El Paso Street, Fort Worth, Texas
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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The Scheme of Chiropractic Legislation this time, as anticipated in these columns heretofore, is to first secure exemption from the Medical Practice Act, which law sets up the constitutionally required single standard for the practice of medicine in the State of Texas, and then establish a procedure in law for the legalization of the practice, not as a branch of the healing art, but as a special group authorized to find out what, if anything, is the matter with the human spine in any given case, and to correct the trouble found to exist, with the hands, and without the use of drugs or surgery, with no reference whatsoever to the treatment of disease or disorder of any kind. Thus it is thought to first secure the cult against prosecution, and then legalize its practice by means of a measure which the authors presume will bypass the points made against the chiropractic practice act recently declared unconstitutional, null and void, and what have you.

And it may be said in passing that the authors of their bill have done well by their Nell. The not too cautious or analytical reader will think that the objections of the Court to the late lamented chiropractic law have been successfully met. Of course, they have not been successfully met, and cannot be successfully met, for the simple reason that no matter what the law may say about it, the object of chiropractic treatment is to relieve the sick. People don't go to chiropractors because they think their spines need adjustment for the spine's sake, but, rather, that it needs adjusting because the patient is sick, or suffering, or something. There is a vast difference between this relationship and that of the dentist, or optometrist, for instance, to those who seek relief at their hands. Beyond any doubt the courts will so hold, and this effort, like its predecessor, will be declared unconstitutional if it ever becomes a law and reaches the courts. The question is, why should it become a law? The Legislature can render a real service to the public by refusing to enact into law those measures which are so definitely unconstitutional.

H. B. 29 (By Rampy, Westbrook, Kirby et al.) constitutes the first step of this unsavory scheme. It is an amendment to the definition of the practice of medicine carried by the present Medical Practice Act. Perhaps it will be well to quote this definition, italicizing the amending phrase. It follows:

"Any person shall be regarded as practicing medicine within the meaning of this law: (1) Who shall publicly profess to be a physician or surgeon and shall treat, or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury, by any system or method, or to effect cures thereof; *except a chiropractor engaged in palpating, analyzing, and adjusting the articulations of the human spinal column by hand only;*

(2) or who shall treat, or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury by any system or method, or to effect cures thereof and charge therefor directly or indirectly, money or other compensation; *except a chiropractor engaged in palpating, analyzing the articulations of the human spinal column by hand only.*"

The first objection to amending the definition of the practice of medicine to this or any other effect, is that the definition has

[1]Deceased.

heretofore been upheld by the higher courts, including the Supreme Court of the United States, all of which litigation will necessarily be repeated if the definition is to continue unchallenged in the courts. That would be a shame.

It would particularly be shameful in that, in all probability, an exemption thus set up will prove to be unconstitutional, or something of the sort, in that it carries an exemption or exception for a group of practitioners of the healing art which has no definition in law. The fact that dependence in this connection is had on the chiropractic practice act (H. B. 34) cannot consistently be urged in its support. H. B. 34 may never become a law. Even so, the chiropractors would be pleased, provided their amendment to the definition of the practice of medicine were upheld by the courts. They would be exempt, and would not be inhibited in any particular. The only fly in their ointment, and in the ointment of the public, would be that any group could claim to be practicing chiropractic, and therefore insist upon exemption under the chiropractic exemption clause. And the mess might easily be further messed up by similar exceptions in behalf of a great variety of cults, some of them directly, and all of them indirectly vicious. There would be no end to prospective legislation of this sort. At one time we recall that as many as twenty-two cults were licensed to practice their respective healing arts in one of the states.

H. B. 34 (By Westbrook et al.), which is identical with S. B. 57 (By Bullock), constitutes the chiropractic practice act, as revamped in the light of the recent edict of the courts declaring the preceding chiropractic practice act as unconstitutional, etc. As we have already said, it apparently evades the objections of the court in the matter of the recent chiropractic practice act, in that it does not authorize chiropractors to practice medicine in the common acceptance of the term, or, indeed, any healing art. Such practice is specifically forbidden in the bill. The caption of the Act says that the bill will "give no authority (Sic!) to use or prescribe medicines," and "the practice of chiropractic, as defined, shall not be construed as the practice of medicine." The measure carries out these promises.

The definition of chiropractic is declared to be "the employment of objective or subjective means, without the use of drugs or surgery, for the purpose of ascertaining the alignment of the vertebrae of the human spine, and the practice of adjusting the vertebrae by hand to correct or remedy any defect or abnormal condition of alignment. A chiropractor is a practitioner of chiropractic, as that term is defined in this section. Nothing herein shall be construed to permit chiropractors to treat the human spine for any defect whatsoever in any manner nor to administer nor to prescribe any drug or physical treatment whatsoever, unless such chiropractor is a regularly licensed physician and surgeon under the laws of this state."

Waiving the confusion set up by the wording of this definition, and the rights of the chiropractor in practice, we might observe that ascertaining the alignment of the vertebrae of the human spine and adjusting the same by hand or any other way, to correct any abnormal condition or defect of alignment, is just as much the practice of medicine as the practice allowed in the definition of chiropractic in the recently deceased law legalizing chiropractic. In the opinion of the Court in this connection, the fact that the chiropractor was "precluded from practicing medicine, that is, from treating diseases or disorders of the human body" does not place chiropractic in the category of optometry, in that the chiropractor "is not limited to treating a particular organ of the body, but to the contrary, might treat the whole of the body, because we know that the spinal column and its connecting tissues embraces the entire body and all organs thereof." Thus the distinction between the two is apparent, even under the further restrictions set up in the present measure. As we have heretofore observed, the purpose of the treatment of the spine by the chiropractor is to relieve the sick, not relieve pain or trouble in the spine.

Certainly the definition of chiropractic as set forth in this measure can but be considered the treatment of a disorder or physical deformity, in contravention of the definition of the practice of medicine. Perhaps it is because of this recognized fact that the chiropractors have sought exemption from the definition of the practice of medicine in another measure (H. B. 29). It is very doubtful, indeed, whether that exemption would be upheld by the courts if it were made, and in the light of the measure now under discussion, certainly the combination is of doubtful validity.

If this measure is by some unfortunate chance enacted into law, its constitutionality will sooner or later be attacked in the courts. In such event, the question to be determined will be, whether the practice of chiropractic is a general system for treating disease or disorder, mental or physical, or any physical deformity or injury, and if found to be such by the courts, the act will certainly be in violation of Article 16, Section 31, of the Con-

stitution, which prevents discrimination by schools, presumably through differences in requirements for the privilege of practicing medicine, which is exactly what happened to the recent chiropractic law. There is certainly a distinction and a difference between the treatment of the spine as set out in this bill, and the treatment of the teeth by the dentists, or the fitting of lenses by the optometrists.

Those of our readers who will interest themselves in the matter, and all of them should do so by all means, not as an attack on chiropractic but in protection of scientific standards for those who would practice the healing art, by whatsoever means or subterfuge, should write to their senators and representatives, and perhaps cause others to do so, urging that this and similar legislation be opposed, not in the protection of the interests of the physician, but in the protection of the public health and welfare. While the matter is of interest to the public rather than to the medical profession, it is a matter of concern to the medical profession because of the aspiration of the physician to serve humanity in perhaps its most important concern—health and longevity. To be of any advantage in this connection, such communications should be immediate, forceful and individual. Our legislators want to hear from us, whether or not they decide to follow our advice, or comply with our requests.

The Pattern of Naturopathic Legislation follows very closely that of the chiropractors, already discussed in these columns. There is first a measure (H. B. 97, By Morgan) setting up exemption for the practitioners of this group, whether or not it is a school of practice, or a branch of the healing arts. However, the exemption in this measure is provided by a proposed amendment to the exemption article of the present Medical Practice Act rather than to the definition of the practice of medicine in that law. If the Medical Practice Act must be messed up by such foolish legislation as this, it is much better that it happen as the naturopaths have planned it. We are grateful for that.

It will be remembered that the Medical Practice Act provides in Chapter 6, Article 4,504, Revised Civil Statutes, that the law will not be construed as discriminating against any particular school or system of medical practice, and so forth, and specifically that it not apply to "dentists, duly qualified and registered under the laws of this State, who confine their practice strictly to dentistry; *nor to naturopathic physicians, duly licensed under the laws of this State, who confine their practice to naturopathy as defined by statutes;* nor to duly licensed optometrists, who confine their practice strictly to optometry as defined by statutes; nor to nurses who practice nursing only; nor to duly licensed chiropodists, who confine their practice strictly to chiropody as defined by statute; nor to masseurs in their particular sphere of labor; nor to commissioned or contract surgeons of the United States Army, Navy, or Public Health and Marine Hospital Service, in the performance of their duties, and not engaged in private practice," etc. The italicized phrase represents the amendment sought by the naturopaths (whatever that is or whoever they are).

An amendment is also provided for that part of the Penal Code which carries the exemptions already recited.

Surely, no one will be misled by an effort to exempt from the Medical Practice Act, a group of practitioners, whether a school, a healing art, or technicians, which is not defined by law anywhere in this State. However, should the measure become a law, any who might claim to be naturopathic physicians could escape the penalty of violation of the Medical Practice Act by claiming to be naturopathic physicians, and hereafter, as in the case of the parallel effort of the chiropractors, any number of such groups would likely ask for and possibly receive the same exemptions. Then what would become of the Medical Practice Act as an effective regulation of the practice of the most intricate, extensive and important profession of modern civilization?

Of course, reliance is here placed upon the passage of the complementary bill (H. B. 82, also by Morgan), which is the naturopathic practice act, but if that bill is not enacted into law, and this law is, what happens? Certainly it would not be in keeping with the Constitution of the State to exempt from the law of the State a group which has no definition in law.

H. B. 82, the naturopathic practice act (By Morgan), like the chiropractic practice act, follows very closely the Medical Practice Act of Texas, and still more closely the plan of the chiropractors in securing recognition for that cult.

Naturopathy is defined as "the use and practice of Drugless Therapy by dietics and the use of dehydrated foods, phytotherapy, vitamin therapy, and autotherapy; and Mechanotherapy by mechanical appliances, vibrotherapy, pneumatotherapy, electrotherapy, heliotherapy, thermotherapy, phototherapy, chromotherapy, and hydrotherapy; and Physical Therapy by articular manipulations,

massage, and gymnastics; and Phychological Therapy by psychotherapy, suggesto-therapy, zone therapy, and neurotherapy; and Radiography."

The further provision is carried that "Nothing in this chapter shall be construed as authority for any Naturopathic Physician, licensed hereunder, to practice Materia Medica, Surgery, Osteopathy, Christian Science or any other treatment or system of treatment authorized and provided for by law, nor shall the provisions of this chapter in any way or manner apply to or affect the practice of Medicine, Surgery, Osteopathy, Christian Science or any other treatment or system of treatment authorized and provided for by law for the prevention, relief or cure of disease."

In our many years of observation of legislation, good, bad and indifferent, freak and otherwise, we have never witnessed anything as meaningless and as confusing as the above quoted definition of naturopathy, including the provision that naturopathy shall not enter the field of the practice of medicine, or interfere with any of the other healing arts. The proponents of this measure have reached into the field of the practice of medicine and lifted therefrom a few of the definitely recognized means of treating the sick, and have added words evidently meaning peculiar methods of practice devised by whoever got together the conglomeration about to be christened as naturopathy. No matter what this measure says, those who undertake to practice under its provisions will certainly be in violation of the Medical Practice Act and/or the Constitution of the State of Texas.

It is sincerely to be hoped that our Legislature will not be inveigled into enacting this measure into law. It is hoped that those of our readers who are interested in maintaining high scientific standards in the field of medicine for the protection of the public health will see that their senators and representatives understand that they are opposed to any such legislation as this, and that they hope these measures will be decisively defeated.

It is a shame that the relatively few physicians left at home in our war effort must be disturbed by the necessity of testifying in connection with the efforts to legalize such bizarre practices as that contemplated in the naturopathic legislation here under discussion, and yet, if reputable physicians do not testify in such situations, the Legislature may be confused by the specious arguments by the proponents of such measures. For instance, it is argued by at least one of the attorneys for these people, that the constitutional provision that there shall be no discrimination as between schools of medicine in enacting laws to control the practice thereof, has no application to naturopathy, in that it is not the practice of medicine, and therefore comes within the province of the Legislature entirely independent of the constitutional provision quoted in this connection. In short, the Legislature can enact any legislation not forbidden by the constitution, and the regimentation of naturopathy, or any of a large number of such practices, may be undertaken at will. They argue that it is only when such measures deal directly with the practice of medicine that the constitutional inhibition applies. We think there are court decisions sufficient in number and importance, to warrant the conclusion in any court that the use of the means and measures set out in the definition of naturopathy carried by this bill, constitutes the practice of medicine within the meaning of the constitution of this State.

Medical Legislation Galore.—According to advice reaching the Legislative Committee of the Association, there will be a larger number of public health measures introduced in this session of the Legislature than ever before. It is not possible for our Legislative Committee at this time to forewarn and foreinform everybody. Every effort will be made to gather together the loose ends as fast as the legislative rope is unwound, and get the information about them as expeditiously as possible. In the meantime, it would be a salutary thing, and quite helpful to the Legislature, if our readers would keep in touch with their legislators and discuss with them any or all of such measures. Our Legislative Committee will be glad to advise with any member concerning any such matters, just as promptly and as fully as possible.

For instance, we are advised that there will be a measure regulating the sale of barbiturates, and it may make a difference as to how this important problem will be handled. A bill will be introduced, requiring tax-free hospitals of the State to permit any reputable licensed physicians to bring their patients to such hospitals, and particularly that no physician or his patients may be excluded because of school of practice. Another measure will seek to extend the Texas Workmen's Compensation law to include a wide variety of occupational diseases, in addition to an extension of the service generally. An effort will also be made to provide for the employment of trained pathologists as medical examiners in autopsies ordered by inquests, a much needed service. The vital statistics laws of the State very much need

revising, and it is very likely that a bill providing for such revision will be introduced. Bills will certainly be introduced providing for a complete tuberculosis program, under the direction of the State Board of Health, with sufficient funds to establish one or more hospitals for the segregation and treatment of tuberculous patients, and sufficient money to inaugurate a real case-finding campaign. This program has been endorsed by the Texas Tuberculosis Association and by the State Medical Association of Texas, among other public welfare groups.

There will no doubt be many features of many bills which will directly concern the medical profession, most of which will not be apparent except upon close inspection. No one person, or committee, can give sufficiently close attention to bills introduced in the Legislature to surely and promptly identify all such items. Indeed, it is a favorite stunt of those who would seek surreptitious legislation to include the same in measures not necessarily pertaining to their problem. We don't have reference particularly to the "rider." It is something that is buried somewhere. It is hoped that it won't be dug up. If we can interest our legislators in searching for such items, we will accomplish a good deal for them and for the public health and welfare.

The Navy Needs Medical Officers.—As is well known and appreciated, Texas has more than furnished its quota of medical officers to the armed services, whose achievements in every theatre in the present global conflict are not only upholding the fine traditions of medicine, but are carrying to even greater heights the contributions of American Medicine to a final victory and peace. While we may rightfully glory in these accomplishments, we are now confronted with an urgent need that must be met. The Navy, which is necessarily constantly expanding to meet the demands of the war, must have more medical officers if our fighting men are to continue to receive, on far flung fronts, the same high degree of medical skill which has kept so low the mortality rates for American soldiers, sailors, and marines in this war.

The State Chairman of Procurement and Assignment for Texas, to whom appeal has been made by the Navy Department for physicians where they can be spared, recently addressed the following communication to the 126 Procurement and Assignment Advisory Committees in Texas:

"Under date of November 28, 1944, this office advised you of a critical need of the Navy for medical officers, which need must be met from some source. While Texas has done exceedingly well in furnishing medical officers for the armed services, it is imperative to again survey your lists to determine whether other physicians may now be spared for service with the Navy, Public Health Service, or the Veterans Administration. The Army has discontinued the commissioning of physicians directly from civilian life. The number of physicians commissioned weekly in the Navy, from civilian life, has decreased 43 per cent since October 31, 1944, which has created a critical need, since the Navy is necessarily continuing to expand to meet the demands of the war. The need is urgent.

"If you have any physicians who can now be spared without jeopardizing community medical care, please report their names and addresses to this office immediately. You are requested to promptly answer this communication, and advise whether or not you can spare any additional physicians, and if you cannot do so, please so state. The Navy needs 3,000 additional physicians, immediately. Many defects which formerly disqualified applicants will now be waived, in the face of the emergency. The age limit is 55 years for the Navy; the age limit is 63 years for appointment in the Army for duty with the Veterans Administration."

It is not expected that many physicians can be spared from rural areas, but it is thought that perhaps in the larger cities, by tightening belts and working still longer hours, some few additional physicians of the proper age bracket may be spared without causing jeopardy to necessary civilian medical care, industry, and the public health. The patriotism and willingness to sacrifice of the American doctor is unquestioned. The need will be met.

Endowment of the State Medical Association Library received mild support recently in response to a letter addressed by the Library Endowment Committee of the State Medical Association to the 126 county medical societies comprising the Association. The following county medical societies have made donations to a "County Medical Society Library Endowment Fund," in the amounts stated and in the order listed:

1. *Walker-Madison-Trinity* (January 15, 1945) $50.00
2. *Jasper-Newton* (January 18, 1945) 40.00
3. *Upshur* (January 19, 1945) 20.00
   Ragland Clinic Hospital, Gilmer $10.00
   Dr. H. J. Childress and Dr. T. E. Marshall 10.00
4. *Cameron-Willacy* (January 23, 1945) 25.00

While the members of the county medical societies which responded are to be highly commended for their support of this important educational activity of the Association, the failure of county societies in general to respond is difficult to understand. Certainly every member of the Association who has any interest in improving his own scientific advancement should have reason to feel that the ready availability of a great medical library to serve him, is an important asset. The many hundreds of Texas doctors served

by the Library during the past twelve years need no one to tell them of the value of its services. Certainly, also, the Library Endowment Committee has clearly outlined a real need for properly endowing the Library to insure its continued growth, and even far greater services in the future to the medical profession of Texas, if properly endowed.

What, then, is the reason for the poor response, in numbers of societies, to the following letter from the Library Endowment Committee, which committee is composed of Dr. B. E. Pickett, Sr., Carrizo Springs, chairman; Dr. A. L. Ridings, Sherman; Dr. V. R. Hurst, Longview; Dr. Orville Egbert, El Paso; Dr. L. C. Powell, Beaumont?

"The Committee on Library Endowment of the State Medical Association requests that you lay before your respective County Society, for thoughtful consideration, a donation to a general library fund of the State Medical Association to be known as the 'County Medical Society Library Endowment Fund'.

While the name of the library endowment fund, which the Committee has proposed to create with donations from County Medical Societies, will be known and published editorially and in annual reports to the House of Delegates, as the 'County Medical Society Library Endowment Fund', it is proposed that under this name there will be published the name of each County Medical Society donating to the fund and the amount given.

"The Committee will be happy to receive donations from individual physicians to this fund, and will give credit to individual physicians, by name, under the 'County Medical Society Library Endowment Fund'.

"We wish to urge every County Medical Society in Texas to make as substantial a donation to this fund as possible, in order that the Library of the State Medical Association, which is now rendering such valuable service to the medical profession—and the public—may be so developed that it will render a still greater service and thus advance scientific medicine in Texas.

We should like to call attention to the need for funds for the library, if it is to reach its maximum possibilities. There is no great library in the world, medical or otherwise, that does not have endowment funds. We cannot expect a really great State Association Library supported solely by the appropriation which the Board of Trustees can make from annual dues each year.

"Permit us to call attention to what may be accomplished if we can properly endow the Library of the State Medical Association.

"First, immediately that the war is over, a modern fire-proof building should be erected in which to house it. The value of the Library at present is immeasurable and is increasing each year. Much of its contents are irreplaceable by insurance, regardless of how much is carried.

"Second, while the Library receives a fairly large number of journals, the present number might well be doubled or even tripled if sufficient funds were available to buy them and sufficient space were available to house them, which is not true in the present building.

"Third, very few books are now purchased, practically all of the money appropriated being expended for journal subscriptions. While the journals are far more valuable for the package service, if sufficient funds could be had, there are many good books that should be purchased each year in addition to those received complimentary for review in the TEXAS STATE JOURNAL OF MEDICINE.

"Fourth, more funds would permit the development of microscopic and photostatic services, which would materially enhance the value of the Library service.

"Fifth, sufficient endowment funds would make possible the collection of slides of pathological material and their cataloguing so that it would be available for lending.

"Sixth, with all of these services there would certainly be need for an increased staff for the Library. After the war when foreign literature again will become readily available, a splendid service would be the translation of articles, or translated abstracts of articles, appearing in foreign journals, when needed.

"May we urge that this communication be given consideration at the first available meeting of your Society.

"Donations should be made payable to the Texas Memorial Medical Library Association, and should be mailed to the Central Office of the State Medical Association, 1404 West El Paso Street, Fort Worth, Texas. Such donations are deductible from income taxes.

"Your Committee on Library Endowment wishes for your Society and the State Medical Association, continuous progress in scientific medicine."

One reason for the failure of more county societies to respond to the above appeal for endowment funds for the library might be the increase in State Medical Association dues for 1945. If this is so, it is unfortunate, because none of the increase is expected to be used in the development of the Library. The increase was specifically designated to provide funds for a better public relations program for the Association and will be spent for that purpose, and to meet the increased expenses of the Central Office caused by inflation incident to the war.

We believe the real reason for the lack of response to the Committee's appeal is the fact that it did not reach the rank and file of the membership of the Association, for which reason it is published here in full; and members of county medical societies who are interested in developing a great medical Library to serve every reputable doctor in Texas are urged to bring this matter before their respective societies for consideration and action.

Increase In Dues Paying Off.—When the dues were increased last year, there was some speculation as to the effect the increase would have on membership. It was felt that while financially we would do very well, we might fail somewhat in the matter of membership. The purpose of the increase in dues was, of course, to provide more money for greatly increased activities, particularly along the line of public relations. There was all along a feeling that perhaps membership was more important than money, particularly at this time, when all reputable, edu-

cated and ethical physicians should rally to the call of scientific and orthodox medicine. In short, we were confronted with a dilemma, each horn of which was important. We are happy to say here that the State Secretary reports that we are doing nicely, both as to members and finance. That is heartening.

On February 1, 1944, there were 1,288 members of the Association, including all classifications. The 1944 regular membership ($9.00) was 1,171. Honorary Intern and Emeritus Members totaled 26, with a Military Membership of 91. It will be remembered that Honorary and Intern Memberships are assessed $4.00 each, whereas Emeritus and Military Membership were without cost. The total income from all these sources, up to that time, was $10,627.00.

On February 1, 1945, the total membership was 1,587. This figure breaks down as follows: Regular members ($20.00), 1,405; Honorary and Intern Memberships ($4.00), 17; Military Memberships ($1.00), 162; with three Members Emeritus at no cost. The total income from these membership sources was, therefore, $28,330.00.

So it happens that not only are we ahead of the game financially, in the sum of $17,703.00, but we actually have 299 more members than we had last year.

We are not in a position to advise at this writing as to how much of the increased funds have been used in the anticipated additional activities, but we may say, with safety, that at the moment there is a fairly safe surplus on hand. We also can say that this surplus money will be put tc highly beneficial use. Certainly the annual report of the Board of Trustees will be fully explanatory concerning all such matters. We trust there will be an annual report, and a House of Delegates to act upon the report. If there is to be any revision of our financial set-up we will be able to make it at such a time. In the meantime, the big idea is to collect dues, in every category of membership, to the extent possible, in order that we may accumulate the maximum in both members and money. We will need both.

Again let us remind our readers that dues for regular memberships are $20.00, plus whatever County Societies choose to collect for their own use. Honorary and Intern Memberships remain as before, $4.00, at least so far as the State Association is concerned. There is a charge this year of $1.00 for military membership, which is assessed to cover the cost of Medical Defense. In this connection, we perhaps should observe that our military memberships are not free from the danger of medical malpractice damage suits.

We should remind our readers, also, that membership in the State Association ceases January 1. There is no such thing as a delinquent member. However, county society secretaries have until April 1 in which to make their annual reports, and in the meantime, all who were members last year are considered as members until their respective annual reports have been made. Any former member whose name is not on the annual report of his county society is not a member any more, but he can renew his membership at any time during the calendar year by the simple expedient of paying his dues to his county society secretary. After the expiration of the calendar year, he cannot do this; he must join all over again. It would seem that the expedient thing to do is to pay dues without delay, and without waiting for solicitation. The county society secretary is probably quite as busy as any of his members, and probably has less time to give to the collection of dues than his members have for the paying of dues.

The Annual Meeting This Year May Be Abandoned.—Because of travel conditions and shortage of hotel accommodations brought about by the war, the Federal Government has ruled that there will be no conventions or meetings of the sort requiring an attendance of fifty or more, except in line with the war effort. The State Medical Association of Texas is anxious to play the game, and certainly does not wish to interfere in any particular with necessary war activities. However, there are those among the officials of the State Medical Association who are convinced that our annual meeting will be in support of the war effort rather than the contrary. Because of this feeling, and the fact that decision to hold the annual meeting had long since been made, our Executive Council has given the problem mature and extensive consideration. By a majority vote of the Council, the State Secretary was directed to request permission to hold the meeting as planned. This has been done. It is not known when the answer will be forthcoming, and what it will be cannot at this time be anticipated. Whatever it is, the medical profession of Texas will be satisfied. Arrangements for the meeting have been practically perfected, and we are ready to go. Every effort will be made to fully publicize the matter immediately that decision is made. We make this announcement because of the large number of inquiries concerning the matter which have been received in the Central Office.

THE TREATMENT OF CLOSED HEAD INJURIES

S. R. SNODGRASS, M. D.
GALVESTON, TEXAS

War, with its abundant production of material for clinical investigation, has usually been associated with remarkable advances in the treatment of traumatic conditions. The opportunity for individuals to accumulate large personal experience favors the elaboration of new therapeutic measures. On the other hand, the observation of patients in whom treatment is delayed or absent favors evaluation of the efficacy of therapeutic efforts. The treatment of head injuries shares in this progress and experience accumulated during World War I was a large factor in the almost universal abandonment of surgical decompression in treatment of these injuries. The present war, with its increased mechanization and mobility and its bombing of cities, has provided large numbers of patients with head injuries. In Great Britain special centers for the treatment and study of head injuries have been established and reports of their experience is available.[1, 10] The war has likewise given new impetus to the study of head injuries in experimental animals and many observations,[6, 7] some of which may be applicable to man, have been recorded.

For a long time it has been generally agreed that the most satisfactory treatment of open, or penetrating, head injuries is the early debridement of surgically accessible cranio-cerebral wounds. The treatment of closed head injuries has, however, remained a highly controversial subject.[5, 11]

Injury to the brain is the cause of the immediate loss of consciousness which characterizes closed head injuries. When consciousness is preserved such a closed head injury is usually of minor severity. Time is not available for discussion of the theories concerning the mechanism of loss of consciousness associated with head injuries.

As the severity of brain injury varies from individual to individual, standardization of treatment is undesirable. A description of the general type of treatment carried out on patients under our care in John Sealy Hospital, Galveston, during recent years will be given. No claim for originality in any feature of this management is made.

Transportation is usually well tolerated by patients with uncomplicated head injuries. This is so well known that it is uncommon for a physician to have opportunity to examine an injured patient before he is moved. The possibility of increasing the degree of spinal cord damage by movement of patients with fracture dislocation of the spine needs repeated emphasis to the laity. The undesirability of moving patients when in severe shock and the possibility of producing compound injuries in patients with fractures of the long bones is also worthy of similar emphasis. The supine position is also frequently undesirable as respiratory obstruction may be produced by the tongue or by accumulations of blood or cerebrospinal fluid in the mouth and pharynx. Under such conditions the lateral or prone position is advantageous.

Determination of the presence of shock and recording the blood pressure, pulse, and respiration is perhaps of greatest initial importance. Accessible bleeding should be controlled. Severe shock is usually not encountered in closed head injuries and the degree of shock usually encountered responds readily to covering the body and the application of external heat. Concentrated dextrose solutions administered intravenously are of great value in the treatment of such shock and we have customarily used from 50 to 100 cc. of 50 per cent dextrose for that purpose. Where considerable blood loss has occurred, larger quantities of a more dilute solution are preferable. Shock not controlled by these measures should suggest the probability of severe associated injuries. Blood transfusion is of great value in patients with severe associated injuries or experiencing unusual blood loss.

Respiration is frequently profoundly altered in patients with head injuries. Respiration is usually shallow; Cheyne Stokes or Biot types of breathing are occasionally present. Stertorous respirations or marked disturbances of the respiratory rate or rhythm are evidence of severe brain injury.

As soon as the patient's general condition permits, search for associated injuries is made. Such injuries may be extremely difficult to detect in these unconscious patients. The patient's state of consciousness will by this time have become apparent: the greater the depth of unconsciousness the more severe the injury. If there is no movement or other response to painful stimulation, profound unconsciousness is present. The size, shape, and reaction of the pupils to light should be noted; in severely injured patients the pupils are often small and fixed. The serious prognostic significance of fixed dilated pupils is well known. Aimless or oscillating movements of the eyes are often present and strabismus is not uncommon. Peripheral facial weakness is usually easily recognized

From the Department of Surgery, University of Texas, School of Medicine, Galveston, Texas.
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but the more common central type of weakness may be apparent only on contraction of the facial musculature. Firm pressure on the supraorbital nerves will usually suffice to produce facial movements. By painful stimulation the ability of the patient to move his extremeties may be determined. Muscle tone is at first usually flaccid although at times rigidity, usually in extension, may be present. In severely injured patients the deep reflexes are frequently temporarily abolished and the abdominal and plantar responses not obtained. More commonly an extensor type of plantar response is present. Determination of sensation is always uncertain. A patient showing no motor activity spontaneously or in response to painful stimulation should have serious consideration as to the possibility of spinal cord injury. As long as the patient remains unconscious frequent observation and neurological examination is desirable to accurately determine his progress. When the patient regains consciousness, his recovery is almost assured.

Frequent determinations of the rectal temperature should be made. This is especially important during the first twenty-four hours when sudden hyperpyrexia may appear and require urgent treatment. At times the removal of bed coverings and exposure of the skin in a well ventilated room will suffice to control fever. The disturbance in the balance of heat production and heat dissipation is marked in severe injuries and the cool extremities and skin frequently present in such patients is out of all proportion to the greatly elevated rectal temperature. Under these circumstances application of ice bags to the body or sponging with alcohol or cold water is generally ineffective in materially lowering the body temperature. Colonic irrigation with large amounts of ice water is usually more effective than any other measure in controlling hyperpyrexia and such measures should be instituted when the temperature exceeds 104 F. The serious prognostic significance of high fever has long been known.

Although roentgen examination of patients with closed head injuries rarely yields information which influences their treatment, it has been our custom to make x-ray films of the skull at the time of hospital admission in patients in satisfactory condition. The impossibility of securing satisfactory examination in restless patients is easily apparent. Unless operation seemed indicated, we have deferred the making of x-ray films indefinitely in those patients whose condition appeared critical. Experience in the use of films made with portable x-ray equipment has not been satisfactory.

In the presence of cyanosis, oxygen administration is indicated. Although certain advantages are inherent in the use of an oxygen tent, we have usually administered oxygen by nasal tube. The greater accessibility of the patient has appeared to encourage and facilitate necessary nursing procedures and frequent observation and examination.

Frequent changes of position are desirable in order to limit in so far as possible hypostatic congestion. If not prevented by the presence of associated injuries, the patient should be turned every two hours. In unconscious patients the head of the bed has been left flat as elevation of the head has at times appeared to increase respiratory obstruction by the tongue. With the head elevated it is more difficult for material to escape from the mouth and the tendency of the patient to slip down in bed is at times troublesome. At the appearance of mucus in the respiratory passages, dependent drainage should be instituted. The foot of the bed should be elevated to a height sufficient to place the head considerably lower than the chest. The patient should at these times be placed on a semi-prone position so that the escape of material from the mouth or nose will be easy and unobstructed. This procedure should be carried out for twenty or thirty minutes every four hours. Although we utilize electric suction for the removal of mucus, we believe that dependent drainage is of great additional value for that purpose. Hyperventilation by inhalations of carbon dioxide to fully expand the lungs has frequently been used. In some patients in whom pneumonia seemed particularly probable we have administered sulfadiazine as a prophylactic measure. The value of such treatment is difficult to evaluate.

In severely injured patients restlessness is usually less troublesome than in patients with lesser injuries. The use of morphine, depressing as it does the respiratory center, is generally considered unwise for use in these patients as their respiratory centers are already depressed to a varying degree by the cerebral injury. Sodium phenobarbital is widely used in the treatment of such restlessness. It may be given in 2 or 4 grain doses subcutaneously and repeated at intervals of a half hour until restlessness is controlled; a total dosage of as much as twelve grains may be required in some patients. As phenobarbital has a prolonged action after restlessness is controlled smaller daily dosage of the drug will be required. Paraldehyde, on account of its safety and the many ways in which it may be administered, appears to be having an increasing use. Restraint of the patient's extremeties usually

serves only to increase the patient's struggles and also appears to make less probable frequent changes in the patient's position. A quiet environment with elimination of external stimuli in so far as possible is desirable.

The observations reported by Harvey Cushing[4] in 1901 concerning the effect of elevation of the intracranial pressure in experimental animals has profoundly affected the concept of the disturbed physiology in the state of unconsciousness caused by trauma to the head. He observed that when the intracranial pressure was elevated above the systolic blood pressure, slowing of the pulse rate occurred and there was a rise of blood pressure to a new level higher than the newly established intracranial pressure. Further increases in the intracranial pressure led to higher and higher levels of the blood pressure until finally "compensation" for the increased intracranial pressure failed and the animal died with rapid pulse and falling blood pressure. The elevation of the intracranial pressure to levels below the systolic blood pressure caused no effect on the pulse rate or blood pressure. Cushing reported these findings as showing the presence of a mechanism for maintaining the intracranial circulation and did not suggest their application to the unconsciousness associated with head injury. The slowing of the pulse rate seen in some patients, the elevation of systolic pressure occasionally present, and the rapid pulse and low blood pressure seen in terminal stages soon led to the suggestion that similar increases in the intracranial pressure were present in patients with head injuries. It came to be believed that the circulatory changes observed were produced by this mechanism and that the intracranial pressure could be accurately predicted. Therapeutic measures to control the intracranial pressure were then evolved.

Although extremely high intracranial pressure probably always exists at the time of injury, reports of observations of the spinal fluid pressure—which is generally accepted as being the same as the intracranial pressure—have failed to show evidence of any pressure increase approximating the systolic blood pressure after injury. Although there is a tendency of the spinal fluid pressure to be higher when the brain damage is great than when it is slight, most reported observations indicate that in the majority of patients with head injuries the intracranial pressure is normal.[2, 13, 14] Pressures higher than 750 mm. of fluid (50 mm. of mercury) have not been encountered and pressures higher than 400 mm. of fluid (30 mm. of mercury) are uncommon. The findings appear to make fallacious the application of Cushing's observations to the changes seen after head injury. Browder,[3] utilizing patients with large postoperative skull defects, has failed to demonstrate changes of a regular or consistent nature with compression produced by pressures approaching or exceeding the systolic blood pressure.

We have not hesitated to perform lumbar punctures on patients not in shock and are convinced that this procedure is not dangerous. Our experiences have confirmed the presence of a normal or slightly increased spinal fluid pressure after injury. The fluid has tended to be more bloody in those patients with severe injuries. It appears probable that the blood in the fluid may, by its increase in the osmotic pressure of the fluid, be a large factor in the elevation of pressure seen in some patients.[12] We have repeatedly observed that removing spinal fluid in amount sufficient to lower the spinal fluid pressure to normal usually suffices to maintain lowered pressure only a few hours. At a second puncture six or eight hours later we have usually found the pressure as high as originally present. We have encountered several fatal injuries which were at no time associated with measurably increased spinal fluid pressure. We have also seen patients whose pressure was initially high fail to show improvement when their spinal fluid pressure became normal. In a seriously injured patient the presence of bloody fluid under low pressure has appeared to be a particularly serious prognostic sign. Lumbar puncture is at times of great value in demonstrating bloody fluid when doubt exists as to whether head injury actually exists. Although the amount of blood in the fluid also has some prognostic value, such information is usually not as reliable as the clinical evidences of severe injury. It has been shown that repeated lumbar puncture is unnecessary for the removal of bloody fluid and that the blood disappears about equally rapidly whether or not puncture is made. Our observations have led us to doubt the benefit of lumbar puncture as a therapeutic measure in unconscious patients.

In patients who remain unconscious for long periods strength and nutrition is best maintained by feedings through a nasal tube. By this means a satisfactory nutritional state may be maintained indefinitely. Giving food or fluids by mouth to patients who are not alert, rarely provides a sufficient intake and would not appear to justify the risk of aspiration. In patients not requiring fluid for the treatment of shock it has been our custom to administer 1,000 cc. of fluid subcutaneously or intravenously in the first

twenty-four hours after injury. Subsequently this amount is increased to 2,000 cc. or more per tweny-four hours, depending on the patient's fluid loss. A nasal tube for feeding is usually inserted by the third or fourth day. A fluid intake sufficiently great to insure an adequate urinary output is imperative.

In view of evidence that the intracranial pressure is not materially elevated in patients with head injuries, efforts to lower the intracranial pressure by intravenous administration of hypertonic solutions, by administration of magnesium sulfate rectally or by mouth, or by the limitation of fluids do not appear to be rational. Our experience has led us to believe that it is unlikely that the spinal fluid pressure can be materially influenced by manipulation of the fluid intake.

Development of an intracranial hematoma is an occasional complication of closed head injuries. With intracranial hematoma the natural tendency of the patient to improve is reversed and the patient instead tends to grow worse. The hematoma may be either extradural and the result of injury to the middle meningeal vessels or to venous sinuses or it may be subdural and arise from laceration of veins inside the dura. When hematomas are associated with additional severe brain injury their diagnosis is extremely difficult. Intracranial hematomas can best be detected by close observation of the patient's state of consciousness and neurological findings; such observations are likely to be of greater value than are conclusions based principally on records of the pulse, blood pressure, or pulse pressure. Whenever an intracranial hematoma seems probable, exploration by perforator openings is desirable. Bilateral exploration is frequently desirable; operation under local anesthesia is usually preferable.

Exploration should be considered under the following circumstances:[9]

1. When a patient not unconscious at the time of injury subsequently loses consciousness.
2. When a patient who has regained consciousness after injury again becomes unconscious.
3. When neurological signs present shortly after injury show progression.
4. When neurological signs appear.

Return of consciousness usually assures recovery. Medication may be required for the relief of headache and at times lumbar puncture is useful for that purpose. Our practice has been recently to allow the patient to sit upright and to get out of bed as soon as he expresses a wish to do so if we believe his physical strength is adequate for this purpose. We have noted no increased incidence of post-traumatic headache and dizziness by allowing patients to become ambulatory earlier than formerly. We believe that it is undesirable to make the patient so conscious of the brain injury that he becomes apprehensive concerning the possibility of future disability. Post-traumatic complaints have never been observed in children by us and they have been most common in severely injured middle-aged or elderly individuals whose occupations require considerable physical activity.

During the last six years 171 patients with acute head injuries have been under our care at John Sealy Hospital; eighteen deaths occurred. Three of these deaths occurred in patients who had recovered consciousness: one was associated with rupture of the jejunum which was not diagnosed early but which was submitted to operation; one occurred a few hours after treatment of multiple compound injuries; and the third occurred five months after injury and was caused by infection in compound skeletal injuries. None of the remaining patients recovered consciousness and died in periods ranging from two hours to several weeks after hospital admission.

It is our belief that there is at the present time no specific form of treatment available for closed head injuries. The possibility that these patients may develop intracranial hematomas should constantly be kept in mind. Measures directed at support of the patient's general condition and to prevent, in so far as possible, the more common fatal complications appear more rational than preoccupation with controversial details. The patient's recovery is usually assured by the return of consciousness.

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John Sealy Hospital.

FAMILIAL HEMOLYTIC JAUNDICE

J. T. KRUEGER, M. D.
LUBBOCK, TEXAS

Though familial hemolytic jaundice is not frequently encountered in surgical practice, the fact that it is more frequent than formerly supposed indicates that it should be carefully considered in any patient with unexplained anemia, whether or not jaundice is present.

A review of the literature reveals that the condition was first described by Murchison in 1885, and its familial occurrence first emphasized by Minkowski[9] in 1900. Chaufford[2] is given the credit for being the first to demonstrate the increased fragility of the red cells, and Naegeli for being the first to stress the importance of the increased spherocytosis of the red cells. Banti, in 1903, seems to have done the first splenectomy after having made a diagnosis of familial hemolytic jaundice. According to Pemberton,[10] splenectomy has been done at the Mayo Clinic for this disease since 1911.

We have been led in the past to believe there were two distinct types of hemolytic jaundice, the congenital and the acquired. The latter form has been reported to be much more severe, to be accompanied by a greater degree of anemia, and to be less benefited by splenectomy. Today there is considerable doubt among clinicians as to whether there is an acquired type, and I am inclined to agree with Sharpe and McLaughlin[8] that "true hemolytic jaundice is always of the congenital or familial type and that generally the diagnosis of acquired hemolytic jaundice is due to an incomplete study of family."

I think all investigators are now agreed that this disease can occur in either sex or any race at any age. We find cases reported in infants a few hours old, and Mandelbaum[7] reported a case in a man past 75 years of age.

We are in the dark as to the etiology of familial hemolytic jaundice except that we do know it is distinctly hereditary, having been traced in some instances through as many as four generations of the same family. Campbell and Warner,[1] as well as many others, have demonstrated that beyond doubt the disease is transmitted as a true dominant mendelian character.

The three principal features of the disease are splenomegaly, acholuric jaundice without pruritus, and anemia, though none of these has proved to be an essential symptom. Splenomegaly is probably the most constant finding in familial hemolytic jaundice and is often the first symptom noted. In my 5 cases I found spleens varying in size, but all enlarged, and four to be painful on palpation.

A dissociated jaundice is found in most of these patients. The skin shows a light lemon color and becomes noticeably deeper during crisis. Often the jaundice is so slight that it is discovered only upon careful examination. The urine and stools are frequently highly colored.

Anemia is more frequent than jaundice, though it is sometimes slight. The red blood cell count usually varies from 3,000,000 to 4,000,000 with an acute attack rendering it even lower. One of my patients had a red blood cell count of only 1,880,000 and hemoglobin 28 per cent. Lord Dawson of Penn[6] reported eight instances of death from acute anemia.

Increased fragility of red blood cells and reticulocytosis are found in almost all patients with this disease, but even these features are not always present. Haden[5] says, "The spherical microcyte is the fundamental variation from the normal in this disease, and the anemia, jaundice, splenomegaly, reticulocytosis and increased fragility are all secondary to the globular form of the erythrocyte."

Familial hemolytic jaundice is essentially a chronic disease, though it sometimes remains latent until adult life. In most cases crises occur from time to time characterized by a sudden rise of temperature, severe abdominal pain, nausea and vomiting, and increasing jaundice and anemia. In these attacks the spleen usually becomes greatly enlarged and extremely tender. Some patients with a latent type of this disease are scarcely aware that they are not normal, and are able to lead useful lives, never feeling the need for medical attention. On the other hand, attacks of hemolysis are occasionally so violent that they prove fatal. I feel with Debre and Lamy[4] that "most investigators of this dease have underestimated its severity."

The most frequent complication of the disease is probably cholelithiasis with stones of cholesterin-bilirubin type. Pemberton[10] reported that 68.6 per cent of the cases at the Mayo Clinic had gallstones and that 23

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of 118 patients had previously been treated surgically for biliary disease without recognition of the primary hemolytic condition.

Painful ulcers of the leg associated with familial hemolytic jaundice have been reported in the literature though these seem to be rare complications. They appear usually about the ankle and resist all treatment until splenectomy results in complete cure.

Splenectomy is the only accepted treatment for the relief of familial hemolytic jaundice and has been performed successfully on patients of almost every age. Medical measures have been tried, but none has proven of any value. At one time surgeons were agreed that splenectomy was contraindicated during hemolytic crisis but many now feel that the operation is a safe procedure and may be sometimes necessary at that time. There has been much controversy among surgeons about whether blood transfusions should be given these patients before splenectomy. Some feel that severe reactions are very prone to occur in spite of accurate cross matching of blood. I agree with Dameshek[3] that, "although splenectomy, as a therapeutic procedure is occasionally necessitated, the importance of placing the patient in proper condition for operation by use of blood transfusion is of primary concern." Accessory spleens should always be searched for and removed if found. It is interesting to note that while icterus and anemia both lessen rapidly after splenectomy, in many there is no real change in fragility of red cells, and microcytosis usually persists.

Following are reports of five cases of hemolytic jaundice in the same family, with clinical cure following splenectomy.

CASE REPORTS

CASE 1.—A girl, 13 years of age, was admitted to the hospital June 21, 1933, complaining of weakness, pain in the left hypochondrium, fever, nausea, and vomiting.

For the past eight years the patient had had at varying intervals attacks accompanied with fever, jaundice, headaches, and extreme weakness. Two weeks prior to her entering the hospital, the patient suffered a severe crisis with fever reaching 103 F., and a sharp, jabbing pain in the left hypochondrium. By the time she came for treatment, her fever had dropped to 99.4 F., and the jaundice which appeared at the onset of the crisis had almost disappeared.

Her family history was noteworthy in that the father had been jaundiced for years wth no great discomfort, and one of her brothers had been suffering with attacks similar to those she had experienced.

Physical examination showed her to be a rather undernourished girl, extremely weak, acutely ill. A loud systolic murmur was heard best in the mitral area. The spleen was palpable and greatly enlarged, reaching about 2½ to 3 inches below the costal margin.

The urine examination showed a trace of albumin but no urobilin. The red blood count was 1,880,000, hemoglobin 28 per cent and color index 0.8. There was marked polychromatophilia and irregularity in size of red cells, and the reticulocyte count was about 12 per cent. The leukocyte cell count was 20,940, and the fragility of the red blood cells was increased.

A blood transfusion was given the patient after which she became noticeably stronger, and on the day of operation, June 23, 1933, her red blood count had increased to 2,670,000 and hemoglobin to 45 per cent.

When splenectomy was performed, the operation presented no difficulties. The spleen was greatly enlarged and the walls of the gallbladder were thickened, though no stones could be palpated. The gallbladder was not removed at this time.

A blood transfusion was given after the operation, and the next day the red cell count was 4,950,000 and hemoglobin 76 per cent.

The spleen weighed 18 ounces and was a granite grey in color. Microscopic examination showed no marked thickness of the capsule. The ratio between the stroma and cellular tissue seemed to be normal.

The patient had an uneventful recovery and was dismissed from the hospital on the eleventh day.

For ten years she continued to have gallbladder attacks, and on June 3, 1943, she re-entered the hospital and submitted to a cholecystectomy. She has been in good health since she recovered from this operation.

CASE 2.—A boy, 18 years of age, a brother of the patient in Case 1, was admitted to the hospital June 21, 1933, the same day his sister was admitted. He complained of severe headache, pain in the splenic region, fever, and of fainting spells.

For four years the boy had experienced similar attacks, at which time he became jaundiced and weak. Three days before he entered the hospital, he became so weak he was unable to talk; his fever reached 104 F., and he fainted several times during the day.

He was a well developed boy with a noticeable pallor and a lemon yellow tint to his skin. The spleen was enlarged and tender.

The urinalysis was essentially negative, showing only a trace of albumin. The red cell count was 2,000,000, white cell count 5,600, hemoglobin 30 per cent. The reticulocyte count was 3.5 per cent, and there was marked increase in fragility of red cells.

This boy was given a blood transfusion on the day after he entered the hospital which increased his red cell count to 2,970,000 and hemoglobin to 46 per cent.

His progress following splenectomy was entirely satisfactory. The operation was performed June 23, 1933, the same day that splenectomy was done on his sister. The enlarged gallbladder, which was found to contain some stones, was not removed.

Transfusion was given immediately following the operation. The blood picture improved, and five days after the operation the red cell count had increased to 4,680,000 and hemoglobin to 85 per cent. The jaundiced appearance of the skin disappeared within a few hours after operation.

Pathological examination of the spleen showed marked congestion of the pulp. The weight of the spleen was 25 ounces, and it was a purplish blue in color.

This patient has been in good health since he was discharged from the hospital in 1933. He is actively engaged in commercial farming, and has had no gallbladder symptoms since the splenectomy was performed.

CASE 3.—A housewife, age 36, was admitted to the hospital on February 9, 1934, complaining of pain in the upper right side of the abdomen below the costal margin, jaundice, and some fever.

Two months prior to entrance into the hospital the patient had an abortion which left her extremely

weak, jaundiced and with a soreness in the upper abdomen. At times she was troubled with nausea and vomiting. She had experienced only one similar attack three years previously, which lasted eight days.

Her family history was interesting in that she was the paternal aunt of patients in Case 1 and Case 2.

This young woman upon examination was found to be jaundiced, slightly anemic, but not acutely ill. The spleen was palpable and decidedly enlarged. She was also found to have cholecystitis, cholelithiasis, and hepatitis.

The blood count showed 3,530,000 red blood cells, a hemoglobin of 78 per cent, and 13,400 white cells. There was slight increase in fragility of red blood cells, and the urine was normal.

On February 10, 1934, cholecystectomy was done at the time of splenectomy, blood transfusions being given before and immediately following the operation.

The spleen was found to be eight or ten times its normal size, and the gallbladder to contain one large solitary stone.

The patient made an uneventful recovery and was discharged from the hospital on the fourteenth day. When she came in later for check-up, her red blood cell count was 4,900,000 and hemoglobin 90 per cent.

CASE 4.—A male student, son of the patient in Case 3, was admitted to the hospital December 18, 1938, complaining of attacks of nausea, vomiting, diarrhea and fever.

For four months he had been tired most of the time, with frequent nosebleeds, headaches, and attacks of nausea.

Physical examination showed a rather well developed boy whose skin had a peculiar pallor. The spleen was slightly tender and could be palpated two fingers' breadth below the costal margin. There was an icteric tinge to the sclerae, and the liver was enlarged.

The laboratory findings confirmed the diagnosis of familial hemolytic jaundice by showing increase in fragility of the red corpuscles, a high reticulocyte count, and the presence of anemia. The red blood cell count was 3,820,000, hemoglobin 66 per cent, and white cell count 8,300.

A blood transfusion was given on December 18, and on December 19, splenectomy was performed through a left rectus incision. The spleen was very large and congested, but there appeared to be no trouble in the gallbladder. Another blood transfusion was given immediately following the operation, and by December 27 the red cell count was 4,330,000 and the hemoglobin 84 per cent.

The patient was discharged on the thirteenth day after operation, and has been in good health since that time.

CASE. 5.—A 5 year old girl, the daughter of the patient in Case 2, was admitted to the hospital February 16, 1943, with pain in the abdomen, vomiting, weakness and drowsiness.

The child had been given two blood transfusions when she was two years old at the time she had pneumonia. She had had no childhood diseases and no other sickness until a year previous to her admission into the hospital. At that time, she began having light attacks with pain in the abdomen, loss of appetite, jaundice, and weakness. For a year she had been gradually losing weight.

Though the patient was rather thin, she seemed to be well developed. Her skin displayed a yellowish tinge, and the mucous membranes were pale. The spleen was enlarged and palpable but did not seem to be tender. Examination of the heart revealed the presence of a systolic mitral murmur.

The blood count showed 2,950,000 red blood cells, a hemoglobin of 44 per cent and 9,500 white cells. The reticulocyte count was high and there was an increase in fragility of red cells. A smear of the red blood showed both macrocytes and microcytes.

Two blood transfusions were given, and at the time of operation, the red cell count was 3,650,000 and hemoglobin 74 per cent.

Splenectomy was performed on February 22, 1943, and the spleen was found to be about six times its normal size. The liver was enlarged but the gallbladder was examined and found to be normal. Immediately following the operation, another blood transfusion was given.

The spleen weighed 280 Gm., was firm and purple. It was thought to be typical of the spleen found in cases with hemolytic jaundice.

Daily blood examinations showed a gradual improvement in the blood, and the child was discharged on the ninth day in good physical condition. A check-up on May 13 showed red cells to be 4,590,000 and hemoglobin 82 per cent.

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1301 Broadway.

ABSTRACT OF DISCUSSION

Dr. James W. Nixon, San Antonio: Dr. Krueger has pointed out that familial hemolytic jaundice is not frequently considered as a surgical entity. This has been true in my own experience since I have operated upon only two patients who I thought had this type of anemia.

While this disease is primarily seen by and is the diagnostic problem of the internist, the essayist has properly advised us the condition is more frequently encountered by the surgeon than was formerly thought. Because of the tendency of the disease to be chronic we are inclined to underestimate its seriousness. That its recognition and treatment is important is emphasized by the ill health of these patients and the mortality rate.

Based on the study of the literature in which there are reports of many patients successfully operated on, similar to those of Dr. Krueger, it appears without doubt that since recovery cannot be obtained through medical care alone, a splenectomy is indicated once the diagnosis is established. However, I think I can safely say the diagnosis is not always simple; in fact, one might say it is at times most difficult. I have observed the study of the blood picture, and the correlation of the clinical findings can be so confusing as to make the diagnosis questionable and likely to bring about considerable professional controversy. Because of this diagnostic

problem, splenic anemia can be compared somewhat to the case in which the uterus bleeds years after the menopause, and in which case one should consider carcinoma as the cause of the bleeding. And, similarly, should we encounter an anemia with an enlarged spleen we should hold the spleen responsible until proved otherwise.

Removal of the spleen is a fairly simple and short operation with the exception of those cases in which that organ is a major problem. The size of the spleen prevents adequate exposure and ligation of the adhesions under direct vision. To overcome this technical difficulty we use an instrument devised by Duane Carr of Memphis for doing a lobectomy. By snaring the spleen, so to speak, all the adhesion ligaments and vessels are incorporated in one bundle without any chance of injury to surrounding structures.

The more we deal with the spleen the more uncertain we are as to its function, and correspondingly are we more uncertain of the diagnosis and the outcome of treatment of diseases related to this organ.

THE PHYSIOLOGICAL BASIS OF THE TREATMENT OF PEPTIC ULCER

CHARLES TURNER STONE, M. D.
GALVESTON, TEXAS

For a number of years peptic ulcer has stood at the top of the list of the organic diseases of the gastro-intestinal tract, and, unless the evidence is misleading, it is slowly but steadily increasing in frequency. This apparent increase is especially applicable to duodenal ulcer; less so to gastric ulcer, although some uncertainty exists on this point. There is no question but that an increased ulcer-consciousness on the part of physicians brings to diagnosis today many cases misdiagnosed or overlooked entirely a few decades past. Accurate x-ray diagnoses are now the rule, compared to their somewhat doubtful status twenty-five years ago. With the modern gastro-intestinal investigation, it is possible to accurately classify on a satisfactory basis most of the patients who consult doctors because of digestive system complaints, and this fact accounts for some part of the large number of gastro-duodenal ulcers seen today. However, the methods of study of these patients have been relatively stable for the past fifteen years, at least, and yet the number of ulcer cases increases.

What are the reasons for this mounting morbidity and mortality from peptic ulcer which, important though they are in normal times, are of increased significance when we are in a total war where every soldier counts and where man-hours of work behind the fronts must be maintained at an even accelerated pace? We may gain some insight into the magnitude of the problem this question poses from the experiences of other nations that have been at war longer than ourselves. As late as three years ago an editorial in *Canadian Medical Association Journal* referred to peptic ulcer as: "The Major Disability of Wartime."[5] The British report a high incidence of ulcer in their troops, both at home and on foreign duty, with more than one-third of the morbidity caused by gastro-intestinal disorders accounted for by ulcer.[4] From Germany[6] comes a report of a steady increase in ulcer incidence in workers at the Krupp munitions factories since the war began. In these subjects records before the war are available for comparison. During the darkest hours of the blitz in London the ulcer perforation rate almost tripled.[7]

It seems logical to assume that the causes of the increase of ulcer in both peace and war have common foundations. Since the exact etiology is imperfectly understood, one must of necessity weigh all available information, strike a total and examine the result. In any appraisal of the subject a distinction should be drawn between duodenal and gastric ulcer, because in certain respects they are different. Let us consider first the duodenal ulcer. It may be said that it does not occur in the absence of hydrochloric acid in the gastric secretion, and that it usually is found in individuals with a fairly definite physical constitution who also have a reasonably uniform psychic and emotional pattern. The triad in the etiology of peptic ulcer, so far as is discernible, is made up of acid, anatomical peculiarities, and emotional instability.

The physical type prone to develop ulcer is generally recognized. It is the long-bodied, hyposthenic, generally underweight person. In this group males predominate over females in the ratio of 4 or 5 to 1. The appearance is that of length in all parts of the body, at the expense of breadth. This, of course, is most probably an hereditary trait, and yet heredity itself appears to exert but slight effect in ulcer. The patient who develops ulcer must be acted upon by other influences. It is generally appreciated that many persons of slight physical constitution are often beset by attitudes of inferiority, especially when they think of themselves in relation to more normally endowed physical bodies and, on the whole, it may very well be that the inadequacies in this regard predispose to the important emotional conflicts they experience; particularly so when the training and environment of childhood have conditioned them to ideas of fear, anxiety and fright.

Thus, it is probable that the anatomical features cause the development of, and merge with a total personality complex that eventuates in a psychic and emotional make-up that

From the Department of Internal Medicine, University of Texas, Medical Branch, and the Medical Service of John Sealy Hospital, Galveston.

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ultimately precipitates the individual into a state of preparedness for the operation of the various factors that cause ulcer. To even the casual observer it is readily obvious that the characteristic ulcer patient is tense, nervous, irritable, worrisome, and frequently driven by an overweening ambition. Draper,[2] who has contributed importantly to our knowledge of this phase of ulcer genesis, feels that fear is the essential foundation of all of the emotional reactions conducive to ulcer formation. He believes that indecision concerning the proper course of action, based on fear and other conflicting emotions, keep such persons in constant anxiety over the proper course to follow. In other words, it is the "fight or flight" alternative. This, as Draper points out, is comparable to the mental state of Henry of Navarre, who said as he charged into battle: "Body you are trembling, but if you knew where I was about to take you, you would tremble indeed."

Much has been said and written about the advances made by modern civilization, and quite truthfully. Before World War I, the classic boast was how we have progressed since the fang and claw period. Indeed, such is the case. Man has created a highly technological existence for himself; has surrounded himself with an exceedingly complicated, changing and at times paradoxical environment, and yet he has done little or nothing to make it possible for his body and his mind to withstand the shocks, strains and contusions that result from such a tempo of life. Frankenstein-like, his own creation threatens to devour him. Small wonder, then, that so many people today have so many diseases, of which peptic ulcer is a fair example, that depend to a considerable degree upon abnormal emotional discharges. In the case of ulcer, it is the autonomic nervous system that is out of balance. The vagus factor stimulates gastric secretion, pylorospasm, and general increase in gastric muscular tonicity that tends to constrict the long thin-walled arterioles that run between the muscle coats, thus impairing mucosal circulation. Vasoconstrictor impulses arising from the sympathetic add to the impeded blood flow. Wolf and Wolff[4] have recently reported studies on a modern Alexis St. Martin, a man with a large gastrostomy opening, where the effects of various emotional stimuli produced blanching or flushing of the mucosa, and acceleration or retardation of the acid-pepsin secretion. In their subject ulcerations were readily produced by minor traumata to the mucosa, and especially so when the protective covering of mucus was scant or absent. Certainly, emotional states do affect the stomach both favorably and unfavorably. The fact that psychogenic causes interfere with normal digestive function was appreciated many years ago by Shakespeare, when he wrote in Othello: ". . . The thought whereof Doth, like a poisonous mineral, gnaw my inwards." Boles[1] has recently stressed the importance of the excessive consumption of tobacco in the causation of the disturbed autonomic nervous system mechanisms that aid in the formation of ulcer. He feels that if progress is to be made in prevention and therapy, sharp restriction in its use must be practised.

So, it is apparent that in an individual with a certain type of physical constitution plus an imperfectly functioning autonomic nervous system the conditions are ripe for the development of ulcer. But this combination alone does not produce the disease; a third factor is necessary and that is acid in the gastric secretion. This triad of the suitable physical state, the autonomic instability and acid complete the triangular-shaped link in the chain of events that, as far as I can visualize it, terminates in ulcer.

The acid factor is of paramount importance. It may be said that no acid, no ulcer. That is, no duodenal ulcer; benign gastric ulcer does occur in the absence of acid. Given a gastric or duodenal mucous membrane the seat of gross circulatory insufficiency from any cause, beset by an inflammatory reaction, and possibly deprived of its normal protective film of mucus, the conditions are ripe for mucosal necrosis from the corrosive acid-pepsin action of gastric juice. Necropsy evidence suggests that such occurrences are quite common, but these lesions heal in a few days or weeks without developing a tendency to chronicity. When this happens to one with the anatomic and emotional ulcer background the story is different. The continuous application of factors that are known to produce acute mucosal ulcerations come nearer to accounting for the pathogenesis of chronic peptic ulcer than any other known explanation.

It may be asked, why go to all this trouble to build such a complicated picture of the events that cause ulcer? The answer is that only by having some kind of rational concept of the way in which the morbid process evolves can the physician have a sound basis for therapy.

In peptic ulcer there is nothing that can be done about a patient's physical constitution, the correction or alteration of which may serve a useful purpose in treatment. With regard to the other two principal foundation stones, psychic and emotional causes, and gastric acid, something very positive can be accomplished in the therapeutic program directed against the problems of ulcer.

More and more medicine, as a whole, is taking seriously its responsibility in matters of mental hygiene, child guidance, and similar efforts directed toward teaching people how to adjust themselves to the complexities of the world around them. It is too early to see clearly the results of these endeavors, but certainly they are steps in the right direction. It is not too much to hope that as these procedures advance they may act to curb the rising curve of ulcer incidence. Without a doubt psychotherapy and skilled psychiatric assistance offer much that is constructive to the rank and file of ulcer patients. The leading of a well-ordered life, reduced in its excessess and consequent frustrations, with common sense rules of work, recreation and rest mean as much, if not more, in the treatment of ulcer than do the diets and drugs employed. It is not enough to say to the distraught patient "Take it easy, old man," or "Stop your worrying." It must be carefully explained to him in understandable terms how much he can accomplish by adopting a normal psychologic outlook, adjusting his conflicts, and living sanely. The results are oftentimes amazingly satisfactory.

The purely medical phase of ulcer treatment is simple in its concept. It consists of a bland diet, fed six or more times daily; the addition of enough alkali, preferably one that is non-absorbable, to reasonably well control gastric acidity; the use of antispasmodics, such as belladonna, novatropine, syntropan, and trasentin, and the judicious administration of sedatives—bromides and barbiturates—at times of stress and only when definitely indicated. The correction of the cartharsis-enema habit, present in so many patients, is just as necessary for the establishment of a comfortable digestion in those with an ulcer as it is where none exists.

In its practical application it is essential that the treatment be highly individualized. The specific and varying needs of each patient must be carefully sought out, and the plan of treatment made to fit the particular requirements. Rule of thumb methods will not do. For example the amount of alkali adequate for one case will be insufficient for another; the use of sedatives and antispasmodics is not routinely indicated, but they may be indispensable to the successful management of certain difficult cases, and before some patients can be controlled a two or three weeks period of hospitalization may be necessary, while many may be successfully carried on an ambulatory schedule.

I believe that 80 per cent or more of peptic ulcer patients can be satisfactorily maintained on medical treatment. Those who cannot be controlled on it or those that have certain complications may be relieved by surgical procedures. The indications for surgical treatment are: (1) perforation; (2) repeated hemorrhages; (3) suspicion of malignancy which applies only to gastric ulcers; (4) pyloric obstruction of high grade; and (5) intractability. In other words, the conservative attitude is that surgery is best reserved for the complicated cases or those resistant to a well conducted medical regime conscientiously followed. A paramount consideration in ulcer therapy should include the cognizance on the part of both physicians and patients that ulcer is a chronic disease, and that the certain penalty of defection in treatment is relapse. The result of an inadequately conceived and imperfectly executed plan of therapy does not constitute intractability: it is either ignorance or neglect, or both.

In regard to the surgical treatment of ulcer, the era of gastroenterostomy is past, and its use is hardly justifiable except in the occasional instance, chiefly in severe pyloric obstruction. The shortcomings of and the failures from gastroenterostomy are too well recognized to require further comment. In its place subtotal gastric resection removing one-half to two-thirds of the stomach including the pylorus is the operation that offers the best prospects of satisfactory results. According to a recent report[3] this procedure produces a relative achlorhydria in 75 per cent of the cases, and success or failure is determined by the achievement of this end. In fact the whole aim of resection is to abolish the acid factor. If that is done results are good. In the hands of skilled surgeons the mortality rate following subtotal resection has fallen from the 10 per cent of some years ago to 3 or 4 per cent or less. The 25 per cent who continue to secrete acid in sizeable quantities after resection furnish the failures, the marginal ulcers, and those whose medical treatment must be continued as vigorously after surgery as before.

Generally speaking, when resection is done for duodenal ulcer the Polya type of anastamosis is preferred, because this method shunts the alkaline duodenal contents into the remaining portion of the stomach, thereby increasing the probability that relative achlorhydria will result. In the case of gastric ulcer the Billroth type of secretion seems to produce equally as good results in this respect. Certain limitations attend the resection treatment. For example subtotal gastrectomy in the case of perforated duodenal ulcer is not attended by the relatively satisfactory outcome that generally results from its employment. The reasons for this are not entirely clear, but it may be assumed

that perforating ulcers represent the failures of other types of treatment in some instances, at least. The occurrence of marginal ulcer is around 2 per cent following gastric resection, and for obvious reasons it constitutes a very serious complication, largely on account of the fact that such ulcers occur because the operation failed to produce a relative achlorhydria, and by reason of the technical difficulties presented by an attempt at further surgical treatment.

It is necessary to apply special considerations to gastric ulcers, because approximately 10 per cent of them are malignant, and there is no absolutely hard and fast rule whereby they can be differentiated. It is, therefore, safer to operate early, since the mortality from partial gastrectomy is less than half the chance that the ulcer is cancerous. The gastric ulcer that does not heal in a month and remain healed is, in a large majority of instances, malignant. At least a part of our woes in having gastric cancer come to operation so late may be traced to procrastination in the handling of gastric ulcer. Under average conditions the well-behaved duodenal ulcer need not be re-examined at very frequent intervals, but gastric ulcer demands that roentgen study and observations with the gastroscope be made every few weeks until complete healing has occurred. If doubt exists as to the possible malignancy of an ulcer in the stomach, immediate surgical intervention is the treatment of choice.

In closing, it is recommended that every patient with a peptic ulcer be studied from the total personality standpoint, and not merely from the isolated view that he is another individual with a defect in the mucosa of the stomach or duodenum. As a famous physician once wrote in his treatise on tuberculosis: "There is a patient who has the disease, as well as a disease that has the patient."

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2201 Avenue D.

ABSTRACT OF DISCUSSION

Dr. Cecil O. Patterson, Dallas: Dr. Stone has given us a most masterful presentation of his subject.

Four years ago, Metz, Lackey, Small and I investigated one factor which seemed related to the pathogenesis and treatment of peptic ulcer. The posterior pituitary was removed surgically from a number of dogs, and the stomachs were studied by direct visualization with the gastroscope. Postoperatively the stomachs were markedly congested and hyperemic and a gastric ulcer resulted in one untreated dog. With administration of posterior pituitary powder, the stomach mucosa returned to a more normal color. We thought we could see similar changes in the gastric mucosa of ulcer patients studied gastroscopically and given posterior pituitary powder either by the oral or sniff method. The results of this study were published in the January, 1940, *American Journal of Digestive Diseases*, and no doubt the members of this Section have individually appraised this method of therapy.

To the gastroscopic study of peptic ulcer stomach, there may be an increased incidence of small erosions or petechiae. Most often, however, the changes in the gastric mucosa we observe are considered to be the result of retention in a dilated stomach, the result of partial obstruction from duodenal ulcer.

The gastroscopic observation of the healing of gastric ulcer, mentioned by Dr. Stone, has been studied by us and, as he mentioned, the ulcer in some instances may still be visible gastroscopically some days or week after the x-ray sign has disappeared.

Dr. George M. Underwood, Dallas: This subject has been presented in a most excellent manner by Dr. Stone. This, however, is not a surprise to me because I have known Dr. Stone since our medical student days, and I have from the first realized that he had certain qualities that enhanced his ability as a great teacher in medicine.

Peptic ulcer is a chronic recurrent disease, the life cycle of which usually ends only with the life of the individual. This means that recurrences of peptic ulcer activity which occur usually in the spring and in the fall, are a definite challenge to the ability of the physician, and the fortitude of the patient.

In spite of the fact that the entire etiology of peptic ulcer is unknown, the known phases of etiology should be discussed frankly with the patient, and an effort should be made to prepare the patient psychologically for recurrent attacks. The patient should be encouraged to consult his doctor at intervals for frank discussion of the problem. These patients, like diabetics, are extremely interested in the evolution of treatment of their disease. The guiding hand of experience and conservatism must be combined with a friendly attitude and one of incorrigible optimism.

In recurrent episodes that are unusually painful and unusually persistent, the nasal sniff of anterior pituitary powder for a few days, may be definitely helpful in conjunction with the usual management. Incidentally, I believe that I have derived some assistance by using the pituitary sniff in the management of certain cases of acute gastro-duodenal hemorrhage due to peptic ulcer.

The importance of long-range management, the basis of which is frequent feedings plus minimal doses of alkali, must be frequently recalled to the patient's attention. The indulgence of two or three short vacations per year is important. Compelling devotion to the dietetic regime may be impressively stimulated by a simple diagram that indicates exactly what pyloric obstruction may entail. With a clear realization of this possibility, I find that many of my patients become more coöperative and are far more willing to omit alcohol and tobacco.

All patients, especially those more than 40 years of age, but I prefer to say "all patients" developing digestive disturbances, should be submitted to complete investigation, radiologic, gastric analysis, blood studies, and, if a gastric lesion is suspected, gastroscopic studies should be made. The practise of plac-

ing patients on ulcer management without this investigation is to be heartily condemned. By so doing we may lose the opportunity of recognizing a gastric lesion in its incipiency.

I cannot endorse gastrectomy as a routine procedure for benign duodenal or gastric ulcer. I believe that gastro-enterostomy, properly performed, is the operation of choice. Every gastric lesion should be examined repeatedly, radiologically and gastroscopically, until healed. This period of observation should not be limited to three or six weeks, but should be repeated at intervals of six to twelve months, even after apparently complete healing.

The cases in which x-ray diagnosis of gastric ulcer has been made, but in which complete achylia is proved, require further investigation and should be considered malignant or potentially malignant. I believe it dangerous to consider these cases ordinary benign gastric ulcer.

We have heard of the land of enchantment. We have heard also that the frontiers of medicine are being moved forward. Gastro-enterology offers no problem more enchanting than that of peptic ulcer in its various clinical manifestations. The element of the unknown is a challenge to the medical profession.

POLIOMYELITIS

A REPORT OF CASES SEEN IN DALLAS IN 1943

JOHN G. YOUNG, M. D., F. A. C. P., F. A. A. P.
DALLAS, TEXAS

The etiologic agent in poliomyelitis is now generally recognized to be a virus. There are some who still believe the streptococcus is the causative organism. The portal of entry of the virus may be more than one. A few years ago the olfactory bulb route was considered by many as the chief entrance, but in recent years the work done by Toomy and co-workers in Cleveland, and by Trask and his group at Yale, have made the gastro-intestinal tract appear to be the most frequent portal and most likely the usual one. That the intestinal tract is one of the infected areas has been undobutedly proved by the frequent recovery of the virus in the stools. I think it is now generally believed that the virus-containing feces are the source of the spread of the disease in most instances and, if so, prevention of this disease approaches the methods used in curbing typhoid fever. The spread from the nose and throat secretions should still be borne in mind.

The present concept of the disease also is somewhat different from that of the past in considering the number of infected individuals in a community during the time active cases are present. It may be viewed somewhat in this manner: For each recognized case (1) there are from 3 to 10 that could be diagnosed with proper clinical study, spinal fluid examination and close observation; (2) there are many more, perhaps from 10 to 50 or 100, that harbor the virus, but without recognized central nervous system involvement. This latter group of persons may be the source of spread and may explain the bizarre epidemiology of a given epidemic; though not having the nervous system disease they may carry it along, and so cases appear that have never come in contact with a known case, either directly or indirectly. Dr. Robert L. Bennett of Warm Springs, Georgia, in discussing this feature, asked what diseases are being seen in the community, and when told that many upper respiratory ailments and mild gastro-intestinal upsets were frequent, stated that with proper virus search he believed many would be found to be due to poliomyelitis.

The virus studies made on siblings and playmates, as found by Stokes of Philadelphia, also showed the prevalence of the non-clinical but infected person.

The virus being carried in the stool over a prolonged period, sometimes as long as four months, puts the isolation period of three weeks open to question. McKhann has demonstrated that the virus can be recovered from sewerage after the usual passage through a disposal plant. Trask and Paul at Yale reported in 1942, that they were able to recover the virus from the stools of monkeys that had been inoculated subcutaneously with the virus, showing apparently the first known detection of the virus in feces during experimental disease; evidently induced by subcutaneous inoculation.

The further spread from infected material may be aided by some vectors, the fly family having been incriminated. The evidence points toward this insect as being only a source of mechanical spread from infected material and not in incubating or acting as a host in the life cycle, so to speak, of the virus. More investigation is going on in connection with this and other insect vectors. It is generally recognized that the major epidemics occur usually in the summer months and this seasonal incidence makes insects rate high on the suspicious list.

The prevention of this disease is a difficult problem. At the present time there is no specific method. Various aiding factors have been mentioned and worked upon. Thiamine chloride, because of its purported oxygenation effect upon nerve tissue, has been suggested but some reports indicate the reverse may be true in experimental infections; the disease being hard to transmit to subjects on a deficient thiamine chloride diet and more rapidly transmitted to those fed on a diet high in this vitamin.

There are several reports on the incidence of the serious bulbar type poliomyelitis in post-tonsillectomy patients and the present

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evidence throws doubt on the advisability of this procedure during an epidemic.

The pathology in poliomyelitis is also under investigation. The long accepted belief that it is limited to the anterior horn cells in the spinal cord is undergoing revision. Kabat and Knapp from the University of Minnesota, reporting this year, describe two types of muscle spasm (a) hypertonus and (b) hyperirritable stretch reflex. They state that the muscle spasm has a neurogenic mechanism and is apparently the result of an increased discharge of nerve impulses through the motor neurons.

Evidence is presented to support the theory that the pathologic basis of muscle spasm is a lesion of the internuncial neurons in the gray matter of the spinal cord. The muscle spasm is produced as a result of release of proprioceptive reflexes from inhibition. They produced muscle spasm in the experimental animal by temporary arrest of circulation in the spinal cord. Correlated with this muscle spasm the spinal cord showed a lesion localized in the internuncial neurons, while the anterior horn cells appeared normal. Also they reviewed the spinal cord pathologic changes in 68 cases of poliomyelitis and found an internuncial lesion in almost every patient. Twenty-six patients showed an internuncial lesion with relatively normal anterior horn cells. Also they found, in 14 patients who exhibited marked muscle spasm, that there is no correlation of muscle spasm with anterior horn cell damage. To them these results suggest that anterior horn cell destruction is not the basis of muscle spasm in poliomyelitis. Interference with the conduction of impulses through the internuncial switchboard to the motor neurons in the anterior horn cells may also help explain the phenomenon of "incoördination" in poliomyelitis. This also may aid in explaining the spotty paralysis seen in many patients.

From these observations, Kabat and Knapp present the conception of spinal cord pathologic changes which are characterized by two types of lesions: (a) an anterior horn cell lesion resulting in motor denervation with muscle atrophy, and (b) an internuncial lesion resulting in muscle spasm.

The epidemic of poliomyelitis that was seen in Dallas in the summer of 1943 included patients from the city of Dallas and Dallas county and also from many cities and counties of Texas. Those hospitalized were at the Children's Hospital of Texas and Parkland Hospital, Dallas. The total number was about 240. I shall report in more detail those at the Children's Hospital of Texas, where it was my privilege to see most of them and observe their progress and treatment.

One hundred and fourteen were admitted to the Children's Hospital of Texas; 46 per cent were Dallas cases, and 54 per cent were from out of the city. Nineteen per cent were diagnosed as the bulbar type.

The age distribution of patients was as follows: 1 to 6 months, 3 per cent; 6 months to 2 years, 13 per cent; 2 years to 4 years, 33 per cent; 5 years to 10 years, 35 per cent; and 11 years to 15 years, 17 per cent.

The time distribution of cases as to entrance to the hospital was as follows: June 15 to 30, 4; July 1 to 7, 12; July 7 to 15, 16; July 15 to 22, 14; July 23 to 31, 14; August 1 to 8, 15; August 8 to 15, 4; August 15 to 22, 10; August 23 to 31, 4; September 1 to 8, 10; September 9 to 20, 9; September 20, 5:

The presenting symptoms or first complaints obtained from the history, were: fever, 100 per cent; gastro-intestinal upset, 64 per cent; pain—headache, neck pain, back pain, or abdominal pain—70 per cent; sore throat, 25 per cent; listlessness, 12 per cent; weakness, 12 per cent; and convulsions, 1 per cent.

Tonsillectomy had been done on two patients a short time before entering the hospital—one two weeks, and the other three weeks, previous to admission.

The results in this series were followed for a few weeks only by the Children's Hospital, but many are being followed by the Scottish Rite Hospital for Crippled Children, who coöperated in every way. Ten per cent of the patients died, all with the bulbar type; 48 per cent were sent home without further treatment needed but returned for check-up by the physiotherapist; 14 per cent were sent home with instructions to parents for further treatment, such as packs and exercises; 28 per cent were admitted to the orthopedic hospital for further hospital treatment; many of whom later were dismissed without further treatment after their stay there. Most of these patients were discharged from the Children's Hospital at the end of the arbitrary three weeks isolation.

There were six instances in which there were 2 or more cases in one family. In one family there were three cases. In 6 other cases there were siblings who had similar symptoms but no paralysis.

It is of interest to note that in 2 cases there were sick chickens around the home; the informants described the chickens as having the "limberneck."

There was one instance in which a rat, paralyzed in the hind legs, was killed in the home about the time the child became ill.

Concentrated plasma was used in 10 cases, all bulbar type, in the hope of lessening the

possibly existing edema in the cord or bulbar region. Of these, seven died. It is impossible to say whether or not it was of value in any case.

Prostigmine was used in only a few of these patients, and its efficacy cannot be evaluated from the small series. It was accompanied by marked improvement and lessened muscle spasm in 4 cases.

Certain observations can be made on this series. The geographical distribution is of interest. On a population basis more patients were admitted from a neighboring city of Irving than from any other—about five times the ratio of Dallas admissions.

In the early part of the epidemic there was a larger proportion from the neighboring municipalities of Highland Park and University Park, while the latter part of the epidemic saw a great proportion from south Dallas and the section on the west side of the Trinity river. Some of these from the two Park Cities were brought home from summer camps. An intensive campaign for sanitation and clean up was instituted and the thought is proposed that the Park Cities may have responded completely and thus may have prevented further spread. Toward the end of the series most of the cases admitted to the Children's Hospital and to Parkland Hospital were from the economically poorer sections of the city.

Sixty-six per cent of the series were from 2 to 10 years of age, and 86 per cent were from 2 to 15 years of age. The youngest patient was a six weeks old breast-fed infant.

All of the patients in the non-bulbar cases survived. The paralysis was frequently "spotty," involving usually no definite pattern; the legs, arms, trunk, abdomen and facial muscles were all involved in some patients.

The bulbar cases were both severe and mild. The first symptom of bulbar involvement was usually speech difficulty. There were several patients with facial paralysis, and it is of interest to note that they were all on the left side, and in those who survived, the facial paralysis cleared up in all. At times it was very marked but recovery was very rapid.

The eye muscles were involved in several patients. Both ptosis and paralysis of the extraocular muscles occurred. These were rather hard to explain and appeared serious, especially if an ascending concept of the progressing disease was taken, for the nuclei of these nerves are exceedingly high as regards the central nervous system. Not all of these cases manifested bulbar involvement and so there must have been again a "spotty" involvement or perhaps these cases should rightly be classified as poliomyeloencephalitis. Those who survived usually cleared up rapidly, paralysis being present only one or two days and appearing and disappearing during that short period of time.

It has been taught that the duration of active continuing possible spread of the disease within the nervous system is limited to only five or six days. This series disproved such teaching, for some of these cases continued to manifest new involvement with frequent thorough testing for as long as twelve days. This development was considered important in this series and should be considered in giving a prognosis.

The management of this series of patients in the hospital was greatly aided by four physiotherapists sent by the National Foundation for Infantile Paralysis. The Kenny treatment was instituted upon diagnosis and carried out in detail and thoroughness with frequent competent muscle testing. All beds were provided with boards under the mattresses and foot boards where needed. All patients were given Vitamin B Complex and a diet rich in vitamins. Isolation from the rest of the hospital was rigid. There was no hospital spread of the disease. It is the opinion of those who observed this group that the Kenny treatment gave excellent results in relieving pain and making for comfort and rest. It was perceptible that these patients frequently quieted down and had relief of pain with this treatment, and if no other results are secured, this alone is a great advance in treatment. There was, however, the opinion that the Kenny treatment gave good results in preventing contractures, lessening muscle spasm and materially shortening the recovery time.

The orthopedic surgeon is in a better position to judge the final results than is the pediatrician.

Most of the cases in this series were seen by an investigating group from the University of Michigan, working with the National Foundation for Infantile Paralysis, who took nasal cultures and washings and blood specimens. No report on these investigations has been made available.

The Children's Hospital of Texas gave over one complete floor to these patients, providing isolation observation rooms during the time needed for arriving at a diagnosis; all equipment was on one floor and it was fortunate that trained personnel was available early. No visiting was allowed. There were no serious complications during the epidemic. In spite, at times, of almost continuous Kenny packing there were very few instances of skin irritation, this in spite of

the fact that all wool packs must be put on very hot.

4005 St. Andrews Drive.

ABSTRACT OF DISCUSSION

Dr. C. O. Terrell, Fort Worth: Dr. Young has discussed the newer ideas of infantile paralysis. This newer conception of the pathology of the disease has done much to explain its behavior and progress. In the few minutes I have for discussion, I should like to emphasize a few points in diagnosis, prognosis, and treatment.

The symptoms are those of any other acute illness; headache, nuchal and spinal rigidity are usually present. All of these symptoms may be absent; however, the headache and spinal rigidity are very seldom so.

One of the first signs noticed may be early "spinal bladder" and loss of abdominal reflexes. A spinal puncture is often of diagnostic value, but very often a normal cell count may be found in an unusually severe case.

In the cases observed at the Harris Memorial Methodist Hospital, Fort Worth, there has been a great variation in the spinal fluid findings. We feel that a case which shows practically all lymphocytes in the spinal fluid has usually reached its height. This, however, is not a hard and fast rule.

The prognosis in the bulbar type is much more serious than in the spinal type. The most common complication in this type of paralysis has been a paralysis of the muscles of deglutition. Most of these patients that do not die, recover in a period of from one to three or four months. If there is an accompanying facial paralysis, this is much slower in recovery.

Some clinicians have suggested that gavaging these patients makes recovery slower but we have felt that in carrying them over a fairly long period it is essential to preserve the nutritional balance.

One of the graver symptoms is a sudden rise in temperature that becomes rapidly fatal. The Kenny treatment has been a distinct aid in the treatment of poliomyelitis, and it has certainly made the medical profession conscious of the fact that something can be done with these youngsters in the way of teaching them to make the best use of the muscles that are partially paralysed. Early muscle training has done more to prevent deformity than any other measure. The public has the idea that the Kenny treatment is a "cure-all" for infantile paralysis and has been led to believe that no crippling should result from this disease when that method is used. The earlier use of the Kenny treatment will certainly make a patient more comfortable and in conjunction with early muscle training, will prevent a great deal of crippling which under our earlier method of treatment would have been more prevalent.

Dr. J. L. Spivey, Fort Worth: I should like to ask Dr. Young concerning the incidence of papilledema in his series of poliomyelitis cases, particularly in those showing bulbar symptoms.

Dr. J. P. Gibson, Abilene: I should like to ask Dr. Young if he has observed any muscle group paralysis occurring after the temperature had returned to normal?

Would it be advisable to give Vitamin B complex to contacts of a case of poliomyelitis?

Dr. S. Edward Sulkins, Dallas: In recent years much research has been conducted in relation to the mode of transmission of poliomyelitis. That the alimentary tract is the important portal of entry of the virus is indicated by the large volume of literature which has accumulated. Despite reports of the presence of virus in stools, in sewage, in flies and even in a mouse found dead in a home where there had been a fatal case of poliomyelitis (reported by Jungeblut), little real advancement has been made in the past two decades toward the control of this disease. Present concern over the possible insect transmission of the disease is merely a renewed interest in the subject.

As early as 1911, Flexner and Clark demonstrated that flies harbored the poliomyelitis virus in the gastro-intestinal tract for at least forty-eight hours after having been fed on infected spinal cords from monkeys. Shortly thereafter other investigators reported the discovery of what they believed to be poliomyelitis in monkeys bitten by stable flies.

The observation concerning the presence of virus in human excreta, likewise, is not new since similar findings were reported over thirty years ago. Several attempts have been made during the past ten years to isolate the virus from flies, mosquitoes and other insects collected in the field during epidemics of the disease. All results were negative until about three years ago when a highly susceptible Java monkey became available for experimentation. Almost simultaneously three independent groups of investigators reported successful demonstration of virus in flies collected in epidemic areas. Whatever the true epidemiology of this deases, it appears certain that portals of entry other than the nasopharynx exist in the human disease and that insects and rodents play a role in its spread.

Dr. Don W. Freeman, Denison: I enjoyed Dr. Young's paper very much. I should like to ask Dr. Young how he feels about rigid isolation of all children in the community during an epidemic of poliomyelitis, or, in other words, what should one tell all the distressed mothers who call up to ask what they can do to protect their children against this terrible disease? I should also like to ask whether he believes that swimming pools present a particular hazard.

Dr. J. R. Lemmon, Amarillo: In Amarillo we had numbers of poliomyelitis cases this summer. There seems to be some connection between the acute vomiting and diarrhea syndrome and poliomyelitis during the summer months. I have felt that possibly we were dealing with an atypical poliomyelitis without paralytic symptoms in certain of these gastrointestinal syndrome cases which may simulate poliomyelitis.

Our experience is that the hot pack treatment has been of considerable value in lessening acute pain and debilitating after-effects.

NOVEL CHRISTMAS GIFT

If Santa arrived overseas on time, the staff of the 20th General Hospital, spending their second holiday season in India, were nevertheless able to see their home folks this Christmas—on the screen!

This novel Christmas gift, from the University of Pennsylvania where the Unit was organized is the work of Dr. Louis H. Twyeffort, an instructor in psychiatry at the School of Medicine, who planned, directed and filmed it, according to the N. Y. *Herald Tribune*. There are nine reels, three of which show members of the families of the medical men, dentists and others serving with the Unit; two are devoted to families of nurses and the other four reels are devoted to personalities and places well known to all who have been associated with the University's medical divisions.

When the 20th General Hospital Unit left the University of Pennsylvania for active service in 1942 it included about sixty physicians, surgeons, dentists and other officers and more than 100 nurses.—*S. G. O. Notes*, Dec. 30, 1944.

NUTRITIONAL DEFICIENCIES AMONG TEXAS CHILDREN WITH SPECIAL REFERENCE TO AUSTIN, TEXAS

J. M. COLEMAN, M. D.*
AUSTIN, TEXAS

The incidence of nutritional deficiences is a subject of much controversy and is just beginning to receive careful analysis. The real implications of these deficiencies in relation to the total patterns of growth, functioning, and development of the human organism are as yet rather hazily appreciated. To date, the work of nutritionists and biochemists has added much to medical science, but the interpretation of these findings into sound clinical and public health application, or procedure, calls for more extensive participation of medical men and women in the research.

Because of the newness of the knowledge of nutrition, there is still some tendency for physicians to scoff at the near miracles that emerge from the laboratories. There are those who still persist in the historical approach to nutrition problems and there are others who consign these problems to some far-off geographical sphere of isolation. It is not necessary to go outside of Texas, or further back than 1943, to present the evidence of nutritional problems in their most marked stage as the following two case reports demonstrate.

CASE REPORTS

CASE 1.—D. R., an 8 month old Latin-American female, was admitted to Brackenridge Hospital on January 2, 1943. The baby was brought to the hospital because of constant crying associated with the development of brawny masses in the right upper arm and the middle left thigh. These masses had developed dring the four weeks previous to admission.

This infant was prematurely born May 24, 1942. At birth, the weight was 3 pounds, 10 ounces; on discharge from the hospital July 17, 1942, she weighed 7 pounds and was in good condition. From the time of this discharge until hospital entry, the child had had raw milk, some pureed vegetable once a week, but no other fruit. The mother, who was interviewed with difficulty, stated that she gave a cod-liver oil preparation and orange juice, but apparently without any plan and the intervals and amount may have varied greatly. In September, 1942, the baby cried each time its left arm was moved, and as a fracture was suspected, the child was brought to the clinic where x-ray examination proved negative and there was no further therapy. During the four weeks preceding admission, the child had been increasingly irritable and areas of swelling had appeared as mentioned.

The mother gave a history of syphilitic infection which was treated for two years prior to conception of this child. Her serological tests were negative both before and after the birth of the child.

Examination revealed a thin, irritable Latin-American child. The weight was 10½ pounds. The child did not appear acutely ill but did cry with every movement of the extremities. The child had not been able to sit alone and there were no teeth. There was a rather severe conjunctivitis, apparently gonococcal in etiology. The only other significant findings were the brawny masses in the upper right arm and the middle left thigh. These masses had the consistency of bone; they were overlaid with muscle and while they were not movable, they were not fixed to the overlying structures.

Laboratory examinations revealed: hemoglobin 5.4 Gm.; erythrocytes 3,880,000; leukocytes 9,700; Kline and Eagle tests negative; urinalysis essentially negative; blood calcium 10 mg., and phosphorus 8.04 mg. per 100 cc. (corrected value). Some three weeks after entry, a stool culture revealed Sonne dysentery organisms but there was no dysentery. The ascorbic acid determination was delayed for a week after entry, at which time a non-fasting level of 47 mg. was obtained.

A roentgenogram revealed the multiple fractures exhibited, surrounded by large areas of calcification. There was fraying and spiculation of the epiphyseal ends of the diaphyses. The roentgenologist reported evidence of both rickets and scurvy.

The syphilologist believed that syphilis was not an etiological factor; the orthopedist considered the picture typical of scurvy. On the third day, the child

FIG. 1. Roentgenogram of the arm of the patient in Case 1, January 2, revealing extensive calcified hematoma about humerus.

turned in the bed and fractured a clavicle, but on large doses of cod liver oil concentrate and ascorbic acid, there was gratifying improvement as shown in the series of roentgenograms exhibited in figure 3, with the result that the child was discharged on April 21, weighing 18 pounds; there was still developmental retardation assessed at from three to four months.

CASE 2.—E. A., a 1 year old Latin-American female, entered the hospital on March 21, 1943. The history was essentially negative for delivery and subsequent progress and family illness. The physician was called because the infant screamed each time its legs were moved. The physician brought the child to the hospital for x-ray studies after making a diagnosis of fracture.

The pediatric consultant found a poorly nourished female, weight 14 pounds, 12 ounces. There were six teeth and the gums were markedly swollen and distended with hemorrhages. The infant screamed upon any manipulation. The diagnosis of scurvy was readily confirmed by the roentgenograms, which revealed large subperiosteal hemorrhages with beginning calcification; the epiphyseal lines were dense and irregu-

Read before the Section on Pediatrics, State Medical Association of Texas, Fort Worth, April 20, 1944.

*Produced in collaboration with D. B. Harmon, Ph. D.; Carl F. Moore, M. D.; W. W. Kelton, Jr., M. D.; J. O. Ravel, M. D.; Elizabeth Gentry, M. D.; W. R. Bodine, M. S.; Elizabeth McGuire, M. S.; W. R. Buckner, D. D. S.; J. H. Bohuslav, D. D. S.; Mabel P. Polan, M. A.; Loucille Langham, M. A.; Rosemary Harmon, M. A.

lar; there was marginal lipping and expansion. Here again the possibility of rachitic features exist. This infant at one year was still breast fed and had received little more than bread crusts and pureed beans. No vitamin therapy had been instituted.

Manifestations such as exhibited by these cases, however, must bear some type of relationship to the total picture of nutritional deficiency that mumps encephalitis bears to the common disease mumps. These classical manifestations are readily interpreted as serious, but underlying these medical curiosities is a great stratum of individuals whose growth and development is being warped by deficiencies that are unrecognized. These cases, which constitute our real problem, are described as subclinical deficiencies, because we have not so sharpened our clinical perception that we are aware of them, or we have become so engrossed in symptoms and symptom relief that we have lost sight of the total individual.

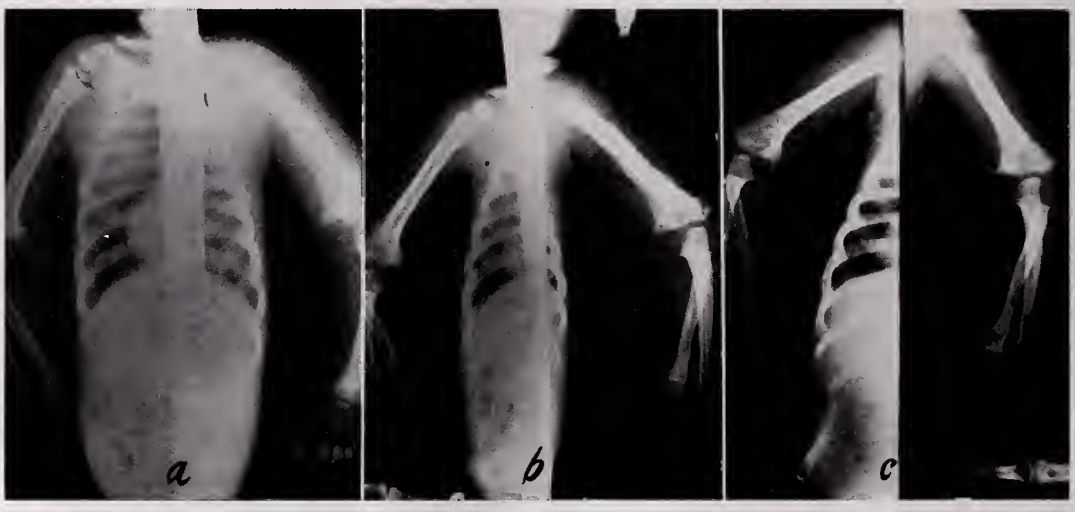

FIG. 2. (Case 1) *a*. Condition February 8. Note smoothing of contour of hematoma.
b. Condition March 6. Definite absorption of calcified area is occurring. Note new growth at the end of the radius and ulna.
c. April 9, four months after entry, the hematoma is absorbed; there is extensive new growth at the ends of the radius and ulna, with some bending, possibly associated with muscular strain.

This preoccupation with symptomatology is difficult to overcome. The author was amazed to find a remarkably small percentage of cases bearing the diagnosis of anemia, after repeatedly commenting in staff conferences upon the remarkable incidence of low blood cell counts and hemoglobin determinations among the children in the pediatric ward. These anemias have been so prevalent that the administration of iron preparations on the service has become almost routine; many do not respond until the Vitamin B complex is added. Despite this fact, the diagnoses on the discharge slips are built on the clinical signs exhibited, and the author, with his staff, is guilty of forgetting this laboratory finding in his final diagnosis.

Despite these obvious discrepancies, an analysis of 200 consecutive cases admitted to the pediatric service (both private and charity) at Brackenridge Hospital, Austin, Texas, in 1943 reveals that discharge slips contained reference to nutritional problems in 42 cases, or 21 per cent of the group. Seven per cent were diagnosed as rachitic on the basis of x-ray studies of bones and 2.5 per cent were listed as scorbutic on the basis of x-ray changes in the bones or hemorrhagic tendencies associated with low blood ascorbic acid levels. There is no reason to believe that Austin is presenting a worse situation than the rest of the State; in fact, comparative studies made by the author have indicated that in at least two other communities studied similar conditions exist.

In 1942 a research program dealing with child growth and development was inaugurated by the Division of Maternal and Child Health of the State Health Department and the Austin-Travis County Health Unit. This program was limited to the Becker School—a white elementary school located in an area of moderate income families. This report is preliminary in character and is intended to present basic data which are apparently sufficiently significant to warrant other such studies.

It is apparent that there are no really satisfactory standards on which one may base an appraisal of nutritional status. There have been many efforts to develop short cuts but most of these are discarded; the height-weight scales are obviously no measure of satisfactory nutrition, since these are built on the basis of the average child and not the su-

perior child. The ACH index, the Tuxford index, and many other measurements have been advocated and then found inadequate. The clinical impression of the pediatrist is found to be a most variable factor.

The initial study included: a nutritional assessment based upon inspection and slit lamp examinations by one pediatrician; a complete physical examination by another pediatrician; a complete and careful eye study; complete anthropometric measurements; x-ray of the hand and wrist for classification of bone age by Todd's scale; a complete dental examination; a nutritional history by a nutritionist; and a battery of psychometric tests designed to give the mental age and educational age for comparison with the chronological age and the physiological age as determined from Todd's scale.

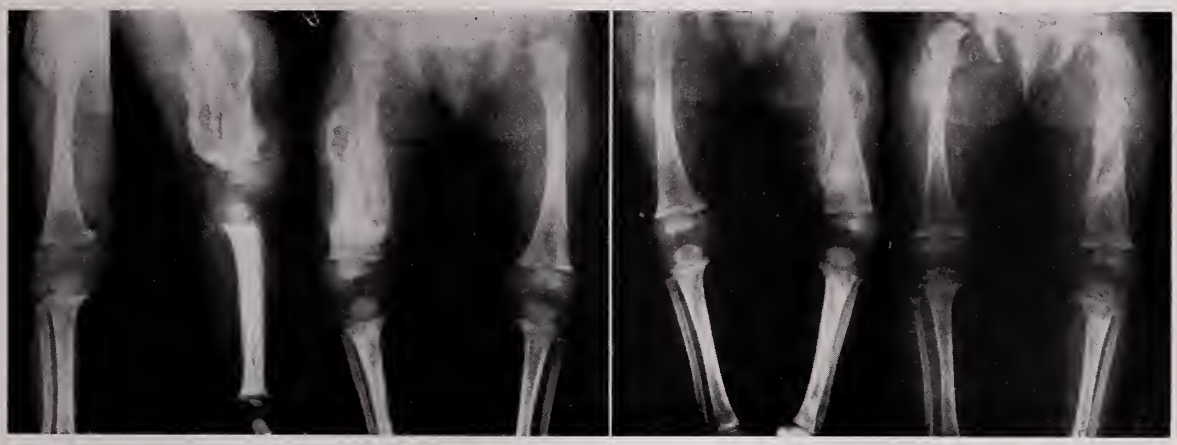

FIG. 3. (Case 1.) Series of roentgenograms showing healing of fracture of the femur with absorption of huge calcified hematoma.

The child was rated by the first pediatrician upon general inspection as excellent, good, fair or average, unsatisfactory, or poor. This impression was listed with reference to the height and weight. The tabulation of the impressions resulted in a normal distribution curve which may be considered as indicating an unbiased appraisal. The only criticism that might be offered is that the curve is too well distributed, but it is believed that bias was eliminated, since no tabulation was made until the appraisals were completed. Of the total group, 29 per cent were considered to have unsatisfactory or poor nutritional status. In general, the distribution curves at various ages followed the curve of the group with the following exceptions: a preponderance of unsatisfactory nutrition in the eight year age group and a peculiar bi-modal curve in the ten year group. It is to be observed in Table I that the older children tended to the unsatisfactory side of the curve. Normally, the child should have completed the work in this school at the age of 11. It may be inferred that this poor status of nutrition in some manner contributed to the delayed progress.

TABLE I.—*Clinicians' Appraisal of the Nutritional Status of Elementary School Children in the Becker School, Austin, Texas, 1942.*

Age	Clinicians' Evaluation of Nutrition				
	Excellent	Good	Fair	Unsatisfactory	Poor
6	1	13	25	20	2
7	3	16	29	12	1
8	2	13	15	17	1
9		17	26	10	
10	3	19	13	15	2
11	1	5	15	5	1
12		3	6	4	1
13		1	1	2	
14				1	
Unspec.	3	1	5	2	1
TOTAL	13	88	135	88	9

The second phase of the examination consisted of detailed inspection for evidence of specific nutritional deficiences; for example, keratosis pilaris was considered suspicious of Vitamin A deficiency; pallor or the mucous membranes was considered to be associated with iron deficiency or B complex deficiency; circumcorneal capillary proliferation as determined by the hand slit lamp was listed as riboflavin deficiency; non-inflammatory gingival swelling or friability was associated with Vitamin C deficiency. The skin and tongue were observed carefully for signs.

Signs which were considered to suggest specific deficiencies were noted at a rate of seven such signs per 100 children whose nutrition was appraised as good or excellent in the first inspection; at a rate of 27 per 100 for the fair or average group; and 105 such signs per 100 children whose nutrition was considered unsatisfactory. Twenty per cent of the total group had eye signs which suggested riboflavin deficiency; at least 14 per cent appeared to suffer from anemia.

There was a significant preponderance of the following difficulties among the unsatisfactorily nourished group as determined inde-

pendently by the second pediatrician in his physical examination; tension of muscle groups, incoordination of fine movements, slump in posture, thin, thick, or rough skin, chronic ear infection or evidence of scars on the ear drum, conjunctivitis, enlarged turbinates, purulent nasal or postnasal drainage, swollen, spongy, or bleeding gums, number of carious teeth per child, cervical, axillary, epitrochlear, and inguinal lymph glands, functional cardiac murmurs, and pulmonary conditions.

It is not possible to determine which condition predisposes to the other but the findings do require consideration. There was no actual significant variation in the number of children with dental caries who fell in the various nutritional states, nor was there a significant variation in tonsillar hypertrophy; in the final analysis, the better the nutritional state, the more the tonsillar hypertrophy. There was a slight association between the cryptic tonsil and tonsillar inflammation and unsatisfactory nutrition.

Since the first year's study was made up principally of clinical impressions, an effort was made during the present year to obtain laboratory confirmation of the extent of malnutrition. Seventy-three parents of the original 330 agreed to the taking of blood from the children for laboratory examination. The tests in each case consisted of hemoglobin determination (colorimetric method), a red cell count, plasma protein determination, and ascorbic acid determination, though these were not fasting specimens.

It became evident very early that there is a paucity of information regarding the physiological values for these determinations in children. Kracke indicates that the average hemoglobin at the age of 6 years is 13.33 mg. It may be a matter of opinion as to just when anemia begins; certainly the average value is not what we seek in height and weight. Do we not seek a better level for hemoglobin? Is it logical to assume that those below the average (an average that must have included anemic children) are unsatisfactory? The range of the hemoglobin values in this group of children was 10.55 to 15.0 mg. per 100 cc.; only two of the entire group had values in excess of 14 mg. Sixteen of the group had hemoglobin values below 12 mg. per 100 cc., fifty-three below 13.1 mg., which is near the average.

The erythrocyte count for this group ranged from 3,500,000 to 5,300,000. Five individuals had counts of less than 4,000,000; 29 had counts in excess of 4,500,000. Thus it appears, on the basis of the hemoglobin determination, that 75 per cent might be considered average. Also, it would appear that more reliance should be placed on the mean corpuscular hemoglobin. The normal range for the MCH is considered to be from 27 to 31. There were 12 children whose calculated MCH was less than 27, and 7 had values in excess of 31; all of these children may be considered anemic. This represents 26.7 per cent of the total group.

The plasma protein may not necessarily represent the nutritional status of the cells of the human body but may be reduced to very low values in prolonged protein deficiency. Normal plasma protein values range from 6 to 8 mg. per 100 cc., but only 8 of this entire group had values of 6 mg. or more.

TABLE 2.—*Relationship of Hemoglobin Values to Blood Ascorbic Acid Determination in 73 Elementary School Children, Austin, Texas.*

Gm. per 100 cc.	Gm. per 100 cc. Hemoglobin								
Ascorbic Acid	10–11	11.1–	11.6– –11.5	12.1– –12.0	12.6– –12.5	13.1– –13.0	13.6– –13.5	14.1– –14.0	Total
Less than 45			1		2	1			4
45.1– 60.0	1	1	2	6	3	4			17
60.1– 75.00			2	1	5	1		1	10
75.1– 90.00			3	3	2	1	2		11
90.1–105.00				4		1	1		6
105.1–120.0				3	1	1	2		7
120.1–135.0			3	1	3	2		1	10
Over 135.1			1	2	3				6
TOTAL	1	1	12	20	19	11	5	2	71

The normal levels for blood ascorbic acid are still to be thoroughly established. Some texts place the lower limit of normal at 0.75 mg. per 100 cc.; thirty-one of the group had levels below 75 mg., or 40 per cent. Another author places the lower limit at 60 mg. but seventeen had values below this. The range of ascorbic acid values was 0.37 to 1.94. Recent studies indicate a relationship between the hemoglobin values and blood ascorbic acid; the present series tends to confirm these findings, since calculation of the correlation coefficient reveals a positive relationship; i. e., variations in these two values trend in the same direction. (Table 2.)

Nutritional histories obtained by the nutritionist in this study are subject to some criticism, since the information was not based upon accurate day by day records. The nutritionist attempted, however, to obtain information which would give some indication of the food habits of the individual child. Tentative calculations would indicate that at least 34.5 per cent did not obtain the minimal diet required for energy needs and growth. Approximately 50 per cent of the diets contained excessive carbohydrate.

The diet was seriously deficient in protein in 49 per cent of the cases; calcium in 69 per cent; iron in 53 per cent; Vitamin A in 33 per cent; thiamin in 53 per cent; riboflavin in 72 per cent; niacin in 29 per cent; and as-

corbic acid in 63 per cent. In these cases, the diet would not yield the calculated minimum requirements of these elements.

Probably no portion of this study is more significant than that which deals with the relationship of the various measurements of age which can be only mentioned within the scope of this paper. Physiological age was the value given on the Todd scale of development determined by x-ray; mental age was based on the Goodenough and the Otis test; the educational age was based on the Gray-Votaw test. Seventy per cent of those in the group who had both mental ages and physiological ages below the median of the group were placed in the unsatisfactory nutrition group. Seventy-five per cent of those with combined low mental age and educational age, 83 per cent of those with combined low physiological age and educational age, and 81 per cent of those with combined low physiological age and mental age, and educational age were classified as having unsatisfactory nutrition on clinical appraisal.

SUMMARY

Evidence is presented that nutritional deficiencies, or malnutrition, play a significant part in the illnesses of children where the conclusion is based upon (a) serious manifestations in hospital cases, (b) tabulation of secondary diagnoses in the hospital, (c) clinical survey of groups of children, (d) laboratory studies of groups of supposedly well children, or (e) other measurements from the educational or nutrition field. The need for the physiological approach to this problem in terms of the total patterns of growth and development is implied by preliminary summaries of material collected by this group.

ABSTRACT OF DISCUSSION

Dr. John G. Young, Dallas: I think Dr. Coleman is to be complimented on presenting this paper and the results of his investigation. It is easy to see that this report, although preliminary, is a result of much work. It is interesting that Dr. Coleman says, "The clinical impression of the pediatrist is found to be a most variable factor in determining proper nutrition." And yet, this is what most of us rely upon. The basis of evaluation outlined is more complex than can be done by most of us. We can, however, by good examination, bearing in mind the regions usually involved in deficiency diseases such as the mouth, tongue, lips, skin, and teeth, arrive at a fairly accurate estimation. And if we are further suspicious, the other examinations such as x-ray and psychometric tests could be done.

Dr. Coleman has called to our attention with percentages many facts about poor nutrition that we knew in a general way. I should think the 29 per cent classed under poor nutrition would be conservative.

In my experience, pallor of the mucous membranes is usually associated with iron deficiency, but I have many times been far astray as to an opinion of the percentage until proper laboratory procedures gave me a figure. Judging this pallor as an evidence of vitamin B complex deficiency has been extremely unsatisfactory to me.

In evaluating the signs of poor nutrition, Dr. Coleman found seven signs per 100 children who had good or excellent nutrition, showing some deficiency even in these; and the 105 signs of poor nutrition per 100 children with poor nutrition was to be expected. The 27 per cent who had riboflavin eye signs should make us think and search for this and try routinely to prevent it. I question the values put upon the plasma protein findings, for in my experience there must be marked protein deficiency before the plasma protein will change from its normal.

The studies on diet are enlightening and show that in spite of great publicity by government and other agencies and the press, the diets of these children were very deficient.

The remarks made on comparing physiological age, mental age, and educational age seemed to indicate that in all respects a well nourished child is better able to cope with the world than a poorly nourished child.

Dr. Gladys Fashena, Dallas: I am very much interested in the figures for serum protein which Dr. Coleman has reported in this paper. We have made no special study of this at Children's Medical Center, but we have been doing serum protein estimations on many children with miscellaneous conditions for a number of years. We have not run into the low values which Dr. Coleman reports. I wonder if Dr. Coleman would mind telling us what method for protein determination has been used in his study.

SOME OBSERVATIONS ON THE TREATMENT OF GLAUCOMA

EVERETT L. GOAR, M. D.
and
CHARLES R. POTTS, M. D.
HOUSTON, TEXAS

Since Weber and Priestley Smith evolved and popularized the theory of the drainage of the aqueous through the angle of the anterior chamber three-quarters of a century ago, ophthalmologists have until recently been fairly well satisfied with the explanation that ocular hypertension was due to an obstruction to drainage in this region. There have always been dissenters to this opinion, however, and it is due to these malcontents that some progress has been made in the study of the problem. As physiologists and biochemists have improved and expanded their knowledge, new facts have been developed that throw some light upon the pathogenesis of glaucoma. There is much room for research yet, however, as many obscure points remain to be solved before the picture is clear.

Magitot has contended for years that a constant and essential feature in the glaucomatous eye is vascular degeneration. Increased capillary permeability is concomitant with vascular sclerosis and the stage is set for edema in a tightly closed and rigid receptacle —the fibrous tunic. Studies of the autonomic nervous system have revealed the

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functions of the sympathetic and parasympathetic nerves upon secretory and motor cells and the method by which a nerve impulse is transmitted into action. We shall refer to this later when we come to discuss the medical treatment of glaucoma.

We know that the normal pressure within the eye is maintained by the proper amount of blood entering and leaving the globe, which forms in some manner, probably by dialysis through the capillary walls, the proper amount of tissue fluid. This in turn is resorbed through the capillaries and also passes out through the meshwork of the angle of the anterior chamber and Schlemm's canal, which is the safety valve. The unknown factor in primary glaucoma is the reason this nicely balanced exchange between inflow and outflow is upset. In some acute attacks of glaucoma, especially those produced by emotional crises, it seems positive that the autonomic nervous system reacts by allowing a sudden dilatation of the capillary bed; fluid escapes through the capillary walls into the tissue and the venous return flow is strangulated. Other acute attacks are brought on by dilatation of the pupil in susceptible eyes, especially by such drugs as supranenin bitartrate and neosynephrin. This is no hypothetical danger and one should be ready to operate on short notice if he uses these drugs in glaucomatous eyes.

Whatever the cause of glaucoma, and there are probably many, the diagnosis of early glaucoma, or the preglaucomatous state is often extremely difficult. How often we say to ourselves—"has this patient glaucoma?" and must answer honestly that we do not know. We must here protest the positive diagnosis of glaucoma when the tension is found a few millimeters above that which is considered normal according to our tonometers. There is no way of telling what the normal tension of any given eye is, nor what pressure it will stand without damage to its structures. It is often necessary to watch such patients for months or even years, assisted by provocative tests and tension curves, field studies, and the reaction to medication before making a positive diagnosis of glaucoma.

Many ophthalmologists think anybody can take a tension and relegate this important duty to the office nurse. The truth of the matter is that to use a tonometer properly is one of the most difficult of our diagnostic feats. If one doubts this, let him have three different persons take the tension of the same patient and observe the results. Tonometer readings are worthless on a nervous patient who will not relax but constantly moves the eyes and blinks the lids. It is better to give such patients a sedative if the tension reading is important. It is better to work across the face, taking the tension of the right eye from the patient's left side, and then moving across to the other side for the left eye. There should be a spot on the ceiling directly overhead for the patient to fix upon, and the foot-plate of the tonometer must rest exactly on the center of the cornea. Tension curves are desirable, but in these days of crowded hospitals and few assistants they are hard to obtain. The next best record is several tensions as early in the morning as practicable.

Provocative tests to produce a rise in tension, and the early field changes in glaucoma are too well known to consider here. With all the diagnostic equipment at hand it may take months to reach the decision as to whether the patient has glaucoma.

Once the diagnosis is made, one must decide whether medical care or surgical treatment is to be used. Some very good ophthalmologists believe that glaucoma is a surgical disease and should be operated on as soon as it is discovered. We have never had the courage to operate upon eyes that have no loss of vision or field defects in spite of the fact that the tension persistently stays above what we regard as normal. One certainly should operate on such patients provided he can promise no disaster will occur at the time of operation or in the postoperative period, but this can not be done. Certainly a patient should not be carried along on one miotic, then another in the face of the loss of visual fields, beginning optic nerve atrophy and continuous ocular hypertension. It often requires discriminating judgment to decide whether medical or surgical treatment will best serve the patient's interest.

Until a few years ago, we were satisfied with the explanation that miotics lowered the intraocular pressure by contracting the pupil and drawing the iris away from the angle of the anterior chamber. We now know that these drugs have other important actions. It has been found that nerve impulses reaching their termination through the sympathetic fibres are transmitted into action by release of an epinephrine like substance called sympathin. Impulses reaching the effector cells by parasympathetic fibres release an acetylcholine-like substance (A. C.), which produces action from the motor or secretory cells (effector cells). This acetylcholine-like substance is rapidly neutralized by an enzyme known as esterase, so its action is very transient.

Miotics then are of two classes—those that act directly on the effector cells—viz: the muscle fibres and capillary walls, and those that neutralize the action of the A. C. destroying esterase. The miotics that have a

direct action on the cells are pilocarpine, mecholyl and doryl. Those that neutralize the esterase are eserine and prostigmin. No one has yet discovered how it may be known whether the nerve terminals, effector cells, or the junction of the two is at fault in ocular hypertension, but Schoenberg[1], in a recent article on the nonsurgical treatment of glaucoma, has indicated that the solution of this problem may be near at hand.

The ophthalmologist has then at his command five miotics, from which he may select one or more to treat the individual cases. Often one will suffice for a while, then it becomes necessary to change to another. Increase in strength of the solutions may become necessary. Having miotics dispensed in a wetting agent that lowers surface tension and increases the penetrating power greatly, such as Aerosol O. S. 0.1 per cent solution, as advocated by Bellows[2], makes them more efficient. In acute attacks of glaucoma we have found nothing that acts as well as a mixture we call Callan's solution—it was first advocated by Dr. Peter Callan of New York —consisting of 2 per cent each of pilocarpine and dionin with 0.6 per cent eserine. If this will not contract the pupil and lower the tension within a few hours when instilled at frequent intervals, it is time to operate.

One of the worst sins of omission committed by ophthalmologists is failure to operate early enough in acute glaucoma. Probably nobody chooses to operate upon an acutely inflamed hard eye, but if miotics do not improve the situation within a few hours it must be done or the eye will be irrevocably damaged. It can be done painlessly and safely by local and retrobulbar anesthesia and by using the scratch incision Elschnig described under the title "Iridectomia ab externo." This method will be described in detail a little later.

One of us has for years been using a method of obtaining a filtering scar in compensated glaucoma that is a composite of several operations. This is an easy and safe operation and does not require the dexterity that a trephine or LaGrange operation does. It has several advantages over other filtering operations, which may be enumerated as follows:

1. The anterior chamber may be evacuated very slowly, giving the eye time to readjust itself gradually to the lowered pressure.

2. It is seldom necessary for any instrument to enter the anterior chamber. There is no danger of injuring the lens in the shallowest anterior chamber.

3. The incision gives an entry into the anterior chamber at the base of the iris.

4. The anterior chamber is usually formed within twenty-four hours. Other filtering operations may produce an hypotony for weeks with a resulting cataract from malnutrition of the lens.

5. A wick of iris is left in the wound so it is less likely to fill up and stop drainage than a trephine hole.

The technique of the operation is as follows: If the intraocular tension is very high a retrobulbar injection of procain with a few drops of epinephrine is given. Instillation anesthesia is used. A bleb of 2 per cent procain is raised above the upper limbus by subconjunctival injection to make the dissection easier and to give complete anesthesia. A large broad flap beginning about 8 mm. above the upper limbus is dissected up, cutting directly down to sclera and including Tenon's capsule in the flap to make it as thick as possible. The flap is dissected down to the limbus and laid down across the cornea. Bleeding vessels are stopped with a diathermy needle. The globe is fixed on each side, and with the point and edge of a keratome a scratch about 6 or 7 mm. long is made 1 mm. above the limbus. The sclera is scratched through layer by layer until the scleral fibres are felt to give way and a small drop of aqueous appears. It is an easy matter to feel with the point of the lance when the fibres have been severed the whole length of the wound. It is necessary to make sure no fibres are left to bridge the wound, else the iris will not deliver. If the eye is not under the influence of a miotic a little pressure on the upper lip of the wound will usually cause the iris to prolapse. It is pulled out until the pigment border is exposed, then a vertical incision is made from the pupillary to ciliary border. The piece of iris held in the forceps is laid back on the sclera. The other pillar slides back into the anterior chamber. If the iris does not prolapse into the wound there is room enough to insert the iris forceps and withdraw the iris. If the bleeding vessels are touched with the fulgurating current, blood will seldom enter the anterior chamber. Atropine is instilled and used for several days afterward. Massage is started not later than forty-eight hours after the operation, and continued for several weeks.

We recommend this as a safe, efficient, and simple operation for glaucoma simplex and for that type of glaucoma known as subacute or prodromic glaucoma in which the tension stays high and the patient is constantly on the verge of an acute attack of glaucoma. We have never seen a recurrence of acute glaucoma in any eye on which this operation was done between attacks. The scratch incision with removal of a piece of iris and implanting of a pillar is the safest and best operation devised in acute glaucoma.

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ABSTRACT OF DISCUSSION

Dr. H. T. Aynesworth, Waco: Dr. Goar has written many papers in the past on glaucoma, and this one by him and Dr. Potts keeps faith with his previous efforts. One can only agree with the ideas and practices set forth, as they are eminently sound, practical and will produce the desired results. Emphasis on a few things may be worth while. I feel that his theories on the genesis of glaucoma so far as presented are in keeping with the best ideas of the present time. In the medical treatment of glaucoma with miotics, the theories brought out by Schoenberg before the combined staffs of the Manhattan and the New York Eye and Ear Hospitals appear to be sound and practical and are certainly worth serious study; and it is to be hoped that further clarification of the exact indications will be forthcoming shortly. In tension taking, the patient should be made to breathe naturally and quietly, not to squeeze the lids and otherwise be as calm as possible. Even then mistakes only too frequently occur. I use a McLean tonometer and have my nurse stand on the opposite side of the patient and read the tonometer with me. In that way a mistaken reading is less likely.

My operative experience is not so large as many, but I feel sure that early operation is far preferable to waiting until noticeable visual and field changes have taken place, for no type of operation can stop a degenerative process once well established, nor can one operate as successfully where the root of the iris is adherent to the angle of the anterior chamber to any extent.

I am glad to see that Drs. Goar and Potts recommended this operation for acute glaucoma as well as for simple and subacute glaucoma. They are not the first ones to recommend this type of operation, but I believe that it is the first time that Dr. Goar has so recommended it. I feel that it should be good here as in the less acute types, though I have not used this operation in acute glaucoma.

My experience with this operation has been eminently satisfactory. It is fairly easy to do, it is safe, and I believe that it will produce as satisfactory results as any operation being done for glaucoma today. I have found it difficult, however, at times to make an opening into the anterior chamber sufficiently far forward to get in front of the iris root in cases where the iris root is adherent to the anterior chamber angle and is more or less atrophied. In such cases I have had to invade behind the iris with a hook and catch the pupillary border from behind, and in so doing have not so far produced any lens changes. I do not, however, recommend the procedure as a method of choice, but only as a last resort when one finds that entry has been through an atrophied and adherent iris root and into the posterior chamber.

Finally, I have added a feature to the operation not mentioned by Dr. Goar. This is the watertight suture introduced by Gifford years ago. I believe it to be a worthwhile addition to the technic. The paper by Drs. Goar and Potts is one of the best we have ever had on glaucoma.

Dr. J. Guy Jones, Dallas: There are conflicting opinions and theories in the literature on many phases of glaucoma, but all ophthalmologists agree that the final result, often with the best of treatment, may lead to blindness.

There are no points in the presentation open for criticism. Several statements deserve emphasis: the technic of tonometry; the question of normal tension height, and tolerance; the pharmacology of, and the use of miotics.

In beginning the treatment of glaucoma, we must consider the age and general condition of the patient. The financial ability and prospects to receive prolonged, adequate observation and treatment; the cooperation of the patient, and of the family or attendants; his emotional or mental stability; the type and stage or progress of the disease.

If it is decided to use medicinal treatment the patient must understand the benefits, limitations and abuses of miotics; that the drops must be used daily, at stated intervals, and that there is little likelihood that they will ever be discontinued; that eventually when they fail to preserve function, some operation will be necessary.

We may select, from one of several, that operation best suited to the case in hand—that operation which, in our experience and the experience of others, will give the best results with the fewest of postoperative complications. Success depends on delicate, carefully executed surgery. Eye tissues react to trauma from the use of dull instruments, or rough handling, by irritative reaction or inflammation.

Iridencleisis bids fair to displace the trephine as first choice of operations in the simple or chronic type of glaucoma. Iridencleisis has all the virtues mentioned in the paper, and the support of authority. It should not be selected if the iris is congested or inflamed, nor does the degenerated iris lend itself kindly to inclusion.

Dr. F. H. Newton, Dallas: The operative procedure presented by Dr. Goar and Dr. Potts is excellent in that it combines safety, ease of execution, and a good final result. Instead of using the keratome to make the scratch incision the Gill knife has the advantage of being less likely to catch in the fibers of the iris after penetration, and can be used also to break up any adhesions in the iris angle, thereby making it easier for the iris to present itself in the wound, or to be grasped by an iris forcep, if this is necessary. The original incision can be made broader with the punch forcep or scissors as desired, and thus make more room for the wick of iris. The extreme importance of follow-up massage after an iridencleisis operation cannot be over emphasized. The patient should be instructed to carry out such massage for several weeks even after dismissal from the care of the physician.

Dr. E. W. Griffey, Houston: Drs. Goar and Potts have given us a splendid paper. In the early detection of glaucoma or "border line" cases, we desire to keep these patients under observation. I take tension (by the tonometer) upon all patients over 30 years of age after a cycloplegic refraction and while the pupils are still dilated. In this way I have, I am sure, been able to prevent some patients from having the misfortune of premature blindness due to glaucoma simplex chronica. Of course on some of these, tension taking is not feasible due to an intractable blepharospasm or too active a wink reflex.

There is more or less tendency to operate too early in glaucoma cases. I feel we should not be too quick to operate unless there is definite evidence of progress in the direction of loss of visual acuity and fields.

There is a marked difference in tolerance in patients whose tension is in the high normal register or slightly above.

Dr. Lyle Hooker, Houston: In reference to Dr. Newton's remark about removing a small scleral plug, it has been found that this maneuver tends to encourage the production of scar tissue so it seems that the scleral slit would give better drainage because of less scar tissue formation.

I am glad to see this type of operation being advocated in acute glaucoma. It was originally advanced with the thought of being used only in chronic glaucoma.

My faith in cyclodialysis has never been too strong, and it is my intention to use this operation on the next case of postoperative glaucoma that I encounter.

Dr. Goar (closing): The two most important points in this paper are (1) the insistence on early operation in acute glaucoma that does not respond promptly to miotics, and (2) a safe method is stressed of entering the anterior chamber in the shallowest of anterior chambers.

In regard to Dr. Aynesworth's statement that vision will often deteriorate in spite of operation to relieve tension, it is true that some of the them do—probably from Schnabel's cavernous atrophy of the optic nerve—but most of the visions that diminish in spite of a successful filtering operation are due to crystalline lens changes, which always develop in long standing cases of glaucoma.

In answer to Dr. Guy Jones, I do not believe it is safe either in acute primary or in glaucoma simplex to use any of the suprarenin group of drugs unless we are ready to operate at once, for in certain of them miotics will not overcome the mydriasis and a severe acute glaucoma occurs. I have produced at least three such attacks myself and have seen it done by others. The suprarenin drugs are safe in secondary glaucoma and in eyes that have had an iridectomy done.

In answer to Dr. Newton, I do not believe any knife is as good for making the scratch incision by the external route as the point and edge of a keratome. One can feel all the fibres give way and know when the incision is complete.

Dr. Hooker says cyclodialysis is not successful. I believe it is the operation of choice in aphakic eyes that keep a persistently high tension. Used for this it has been successful in my hands.

Dr. Griffey appeals for routine tensions in people over 30. I believe this will cause more trouble than it relieves. Very few tensions are accurate the first time they are taken because of the patients inability to relax and fixate properly. There have been many cases diagnosed as glaucoma by this method that did not have it, and this is a serious mistake.

VIRUS DISEASE FROM PIGEONS MAY BE A CAUSE OF SPORADIC ATYPICAL PNEUMONIA

In view of the high percentage of pigeons in the United States infected with ornithosis, a disease similar to psittacosis which is contracted from psittacine birds, such as parrots, and since countless individuals are daily exposed to this potential reservoir of infection, it is probable that the virus of ornithosis may be responsible for many sporadic cases of primary atypical pneumonia which pass unrecognized, three physicians declare in *The Journal of the American Medical Association* for December 23, 1944.

Lieutenant David C. Levinson, Medical Corps, A. U. S.; Lieutenant John Gibbs, Medical Corps, A. U. S., and Joseph T. Beardwood, Jr., M. D., Philadelphia, report 6 sporadic cases of ornithosis the diagnosis of which was confirmed by laboratory tests. A history of direct contact with pigeons was obtained in 2 cases and in the others there was daily exposure to pigeons in the immediate vicinity of the homes. They point out that it is known that infection may occur through the inhalation of the infected excreta of pigeons blown about as dust. Six of 14 pigeons captured in Philadelphia were found to have positive tests for ornithosis.

THE ROLE OF THE PRIVATE PHYSICIAN IN VENEREAL DISEASE EDUCATION

LEWIS ROBBINS, M. D., M. P. H.*
SAN ANTONIO, TEXAS

The physician in private practice has four major responsibilities in connection with venereal disease education: (1) holding the patient with venereal disease until cured; (2) finding the patient's sexual contacts; (3) raising the venereal disease information level of the community; (4) finding undiagnosed syphilis in the community.

It has already been shown that the greatest amount of veneral disease occurs among those individuals with low levels of education. To begin this paper by urging the medical profession to the need for venereal disease education would be a waste of time. However, there are some new developments in venereal disease which should be mentioned, as they will serve to highlight the importance of venereal disease education in the community.

The "sulfa" drug has failed to work the miracle that was predicted for it by the *Reader's Digest* and other uncritical lay publications. Pelouze even states that gonorrhea is gaining: "We already have started toward the greatest epidemic of gonorrhea that our country has ever experienced."

Another development in connection with gonorrhea is the growing conviction that there is a much greater prevalence of the disease among women than formerly supposed. Our limitations in diagnosis by the slide or smear technique have been pointed out by the startling development that the use of three cultures for finding gonorrhea disclosed two to three times as many cases as the single slide examination alone.

A further development which may influence venereal disease education is the discovery that penicillin will probably greatly hasten the cures of both syphilis and gonorrhea. This should lighten the task of the physician, who is using venereal disease education for the purpose of case-holding. Dr. Manning Venable of San Antonio says, "My heart sinks when I see a new case of syphilis. I know that there is better than a 50 per cent chance he will not finish his treatment." Penicillin should increase the significance of venereal disease education in case-finding and hunting down the source or victim of the case.

Great progress has been made in eradicating the taboo against discussing syphilis and gonorrhea openly. This development, how-

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*Director of Public Health, San Antonio, Texas.

ever, was a foregone conclusion when we reflect that commercial interests had successfully forced on the long-suffering public advertising on "B. O.," feminine hygiene, and the sanitary napkin.

Another factor which must be evaluated is the tremendous success of the venereal disease control efforts aimed at reduction of venereal disease among the military personnel. A part of this success is due to prostitution suppression efforts. Other factors were venereal disease clinics, education of the soldier, and venereal disease education among the civilian population.

The complexity of the diagnosis and treatment of syphilis and gonorrhea has greatly limited the time a physician has with his private patient in discussing aspects of the disease. According to a public health service pamphlet, there are over 200 conditions which may simulate syphilis. However, the actual armamentarium of the physician is so great in his attack upon venereal disease that he can well justify spending time on venereal disease education. In few diseases can he influence for good the fortunes of his patient so remarkably as in venereal disease control.

CASE-HOLDING UNTIL CURED

The United States Public Health Service has outlined six important health education tasks in case-holding. These are:

1. The relative inefficiency of the blood serologic tests as a measure of infectiousness, fitness for marriage, or conception, and "cure."
2. The dangers of inadequate, short-course, and irregular treatment.
3. The lulling into false security produced by the quick disappearance of symptoms under treatment.
4. The probable treatment requirements—just what the patient may expect.
5. Personal hygiene, control of treatment reactions, and symptoms of infectious recurrence.
6. The need for observation for a period of five years, as pointed out by Padget.

I should like to recommend for the office of the private practicing physician some excellent case-holding literature, which the Public Health Service provides: "Gonorrhea —the Crippler," for the early case of gonorrhea; "Syphilis—Its Cause, Spread and Cure," for early cases of syphilis; and "You Can End This Sorrow" for patients with syphilis found during pregnancy. These pamphlets can be obtained from the State Health Department.

FINDING THE PATIENT'S CONTACTS

The intellectual integrity of a physician demands that he not overlook contacts to his private patients. He will ask himself, "from whom did this patient get this venereal disease?" He will also ask, "to whom has, or will this patient give this venereal disease?" The physician will practically always want to carry out his own venereal disease education. However, the follow-up is a far more laborious procedure. Ethically, the physician cannot go out and find these contacts. He may send the patient out to do so, but this procedure, too, may be difficult.

The first visit of the patient will not always elicit the source of the disease. The physician will remember cases in his own practice when patients have been reluctant to give the exact contact. A lip chancre is adequate evidence that the disease is extra-genital. However, in the absence of extra-genital evidence, the physician of a patient who disclaims any sexual contact which might lead to the disease, will make further efforts to gain the truth. Obtaining the accurate source of the disease is quite difficult, and will await a time when the patient trusts the physician implicitly. This might be on the first visit, the second, or even the fifth or sixth.

The finding of early syphilis by the private physician is a real emergency. At that time the physician has it within his power to discover another case, the source; and possibly other contacts if the patient has been promiscuous.

RAISING THE VENEREAL DISEASE INFORMATION LEVEL

Venereal disease control has been slow so far because we have tried to use the old approaches of public health. In these approaches we do the health tasks for people. We vaccinate them, put in their plumbing, quarantine them, pipe away their neighbor's sewage, x-ray them, kill their rats and jail their prostitutes. When we try to keep them from getting the venereal disease, by using the old technique, we fumble. Our way of life is based on letting a man choose his activity, and it is a good way. It starts slowly but it is faster in the long run. It may be that people simply want the facts handed to them without a moral or a caution, so they may make up their own minds. Perhaps they won't accept the convictions of their elders, based on their elders' interpretation of facts. If so, we had better quit talking to service clubs and parent groups and stirring them up to do something about the juvenile delinquents. The youngsters have never had a chance to make up their own minds from their interpretation of the facts. We have not yet given them the facts. Maybe we had better find which groups are getting into trouble and provide them with the facts we have learned so painfully. Dr. Russ has been trying to tell us this for a long time, that even the forgotten man is human and the only practical way to help him is to let him help himself. I am for promoting venereal disease facts without a moral.

In controlling malaria, we seek to destroy the mosquitoes that do the infecting. In controlling venereal disease, we should also focus our activity on the group that is doing most of the infecting. A relatively small part of the population is responsible for a large part of venereal disease. Naturally, this group is in the sexually active ages. It is a low economic group. Many of these persons did not complete grammar school. Their members can not be found in ready-made meetings waiting for a speaker on venereal disease. They are waitresses and clerks and have not identified themselves with organizations. Ten per cent of the waitresses and food handlers on whom blood tests were made in Wichita Falls had or had had syphilis. My guess is that 20 per cent of them also had gonorrhea. This is probably typical of the group of which I am speaking.

Much of our venereal disease education follows the line of least resistance. We discuss venereal disease and arrive at the inevitable conclusion that "the people must be educated." Then we look for the people and find service clubs and parent-teacher organizations with active program chairmen searching for significant topics. They give us a date, provide the lunch, the audience and the hall, and we provide the talk and the pamphlets or perhaps a good sound film on venereal disease. All of this requires little effort. But what have we accomplished? The special group remains untouched. In fairness, let us say that we have at least enlisted some important people on our side.

So far, in venereal disease education we have used commonly the following media: organized adult groups, the radio, the newspapers, and to a much less extent, the schools and parent groups in our education. We have used as tools 16 mm. films, pamphlets, posters, and special lecturers. These have been helpful. But the sexually active, low income, poorly educated individual turns off such a radio program, skips most of the newspaper stories, has quit school before he is "fit to hear about venereal disease," gets too little from posters to build a personal conviction, and throws away most of our literature. We have come to the hard place in this road and we won't solve the problem by ignoring it.

This is the frontier in public health and in private medicine alike. Beyond any doubt, in my mind, the most satisfactory method would be to have a physician in private conference explain in words the individual could understand, what venereal disease is, does, and how it is passed. But this is impossible. We need a new approach entirely. Someone with imagination will think of a method to provide venereal disease facts to these people so they may help themselves.

One such method of venereal disease education which will indicate the trend is the Detroit "gutter learning" method. It is commonly accepted that this special group will pass around sex information among themselves. Much of their information is false but that does not deter them: "Gonorrhea is no worse than a bad cold." "You're not a man until you've had the clap," and similar examples of ignorance. Someone had the idea that this special group would pass the truth around as quickly as they would misinformation, if it were in the language they understood.

Several men were carefully selected who would not find it difficult to mix with this group. They were taught the fundamentals in venereal disease control. They then prepared themselves to tell this in the "language of the street." They were given portable projectors and good venereal disease films, such as the Public Health Service film, "Know For Sure." Then they went to pool hall managers, and juke-joint proprietors and asked for permission to tell these "specials" the story. Nearly without exception the proprietors, when they heard the approach, would say something like this, "Sure go ahead. They sure need it."

This new approach looks as if it might be helpful. The "audience," which usually doesn't consist of more than five to ten, is curious and inquisitive. It has been found that it isn't necessary to tell all "specials" in the city because they pass the information along to others themselves! Gutter learning with a purpose!

There are many agencies and far-sighted individuals who are pioneering in the control of venereal disease education. Dr. M. S. Dickerson, Venereal Disease Control Chief of the State Health Department, is launching a state-wide venereal disease educational program. The program includes the organization of the community into a council which will combine the community intelligence necessary so that the various skills, unrelated to clinical medicine, but none the less important, may be combined to get the job done.

For several years the U. S. Public Health Service has been furnishing the leadership for an attack on this problem. Under Surgeon General Parran they have broken down the "conspiracy of silence" and now, instead of opposition to this discussion, there is an awakening demand for information.

The American Social Hygiene Association has also given direction and promotion to the attack on this problem. The work of men like Bascom Johnson, who has been carrying

this fight since 1914, had much to do with making our present progress possible.

Education, to be pertinent, should be built around action and participation. Today, there is a great reservoir of untreated syphilis in the community, slowly drifting toward partial or complete destruction. By blood testing every individual in the community, these cases could be found. Most of them would be private cases. To undertake this giant task, Texas only awaits the leadership of the medical profession. May I say that no other group is qualified to assume this leadership.

There is a growing trend among physicians to lend their leadership to important public health undertakings. Dr. Charles Venable, President of the State Medical Association, has been spear-heading such a movement in Texas. In San Antonio, he is mobilizing the new Public Relations Committee of the Association under Dr. Merton Minter and Dr. Walter G. Stuck to serve as speakers in a dengue-fever control program. They will talk to organized groups in the community such as school, service club, parent and church on the Aedes mosquito control and through education remove the hazard of Aedes aegypti breeding.

I should like to suggest that the mass blood testing of every Texan, following a carefully planned approach after a strong venereal disease education program, would do much to control syphilis in Texas. This is a job for which the medical profession is peculiarly fitted to furnish the leadership.

128 West Commerce Street.

ABSTRACT OF DISCUSSION

L. E. Bracy, Austin, (Read by Dr. T. E. Dodd): I have enjoyed studying Dr. Lewis C. Robbins' splendid paper on venereal disease education. It seems to be so clearly presented that it really needs no further discussion, but inasmuch as his paper was limited to the educational work possible to the private practitioner, it may be of interest for me to mention briefly some other types of venereal disease educational programs now in use.

With a satisfactory degree of success, we have been employing those means of education designed to reach the population of Texas as a whole. Posters, placards, and stickers have been used in public waiting rooms, rest rooms, and even in public conveyances.

Exhibits and motion picture films have been shown before civic and service clubs, churches, schools, social and educational organizations.

Newspaper releases have been supplied regularly to some 800 Texas newspapers, and have been accorded many thousands of column inches of space.

Billboards have been utilized in some of the larger cities, and lectures have been delivered to huge crowds gathered in mass meetings to assist in stamping out venereal disease.

It seems likely that in the future our efforts will be directed less to shotgun methods of reaching the public *en masse*, but more and more into those channels aimed at educating the individual in need of this information.

It is a recognized fact that pool rooms, dance halls, bars, taverns, smokers, and even some of the so-called "athletic clubs" have, at most hours of the day or night, groups of patrons who are in need of being forcefully impressed with the necessity for being on guard against venereal disease infection. It seems that an excellent plan would be to take motion picture films and exhibits into these places, with educators in charge of short programs, to distribute well prepared literature and encourage questions from the audience. Needless to say, they would have to be prepared to answer clearly and concisely any questions which may be forthcoming.

Briefly, these are some of the means and methods now in use, and some suggestions for procedure which may be used soon in venereal disease education in Texas. The private practitioner has his part, as Dr. Robbins said. The health officer has his part, and the State Department has its part. The program, to be successful, will need our concerted efforts.

Dr. Paul L. Wermer, Waco: Dr. Robbins has spoken of methods of approach to the venereal disease problem. Specifically in Texas, as revealed in the examination of selectees, a great pool of infection exists in our Negro population.

A method of approach to this group is the utilization of the Colored Ministerial Association. By this method, we succeeded in testing one-sixth of the Negro population of the City of Waco. The procedure used was as follows:

1. Meeting with the Colored Ministerial Association.

2. Meeting at a selected church; educational motion pictures, and a discussion of venereal disease for the audience.

3. Followed within a week by a blood-testing clinic held during the evening hours.

These clinics were held in various portions of the city, and were manned by volunteer physicians and the nurses of the Health Unit.

Fifteen hundred and ninety-seven Negroes were tested with an over-all percentage of 13.25 positives. An amazing feature of this was the low incidence of syphilis below twenty. In the age group from 10 to 19, with 636 examinations, an incidence of 4.7 per cent was encountered. Above 20, the incidence ranged from 17 to 25 per cent, indicating that most of the syphilis existent in our Negro population is acquired. Of the 212 found positive, 170 were placed under treatment.

AGRANULOCYTOSIS

Two cases of agranulocytosis successfully treated with penicillin are reported in *The Journal of the American Medical Association* for December 16 by Lieutenant Colonel Leslie B. Smith, Major Frank Cohen and Captain Ralph G. Nichols, Medical Corps, Army of the United States.

"Although both of our patients received additional therapy," the authors say, "the striking improvements were observed to occur during the first twenty-four hours of the penicillin therapy. From the results obtained in these 2 cases we believe that further trial of penicillin in the treatment of agranulocytosis is indicated."

Every home or environment in which there is an infectious case of tuberculosis is a stronghold of the tubercle bacillus which must be "cleaned out" through the persevering use of modern scientific control measures.—*Robert E. Plunkett, M. D.*

MALARIA CONTROL IN WAR AREAS

L. J. TROTTI
(Assistant State Director Malaria Control, Texas State Department of Health)
AUSTIN, TEXAS

History of Malaria.—Malaria is an ancient disease that has probably existed as a scourge of mankind since prehistoric times. Although the causal agent of malaria and the method of its transmission have been discovered only recently, old writings indicate that the inhabitants of malarious regions long suspected that mosquitoes, or other insects, were in some way associated with the fevers which attacked them.

Since the discovery of the mosquito transmission of malaria theoretically placed this infection in the category of preventable diseases, an enormous amount of information about this disease has been accumulated and the application of this information has led to successful control of malaria in some regions; however, vast areas still exist, particularly in the tropics, where it has been impossible to prevent malaria by mosquito control. Despite active antimalaria measures in more progressive countries in the temperate zones, malaria has not been satisfactorily controlled. A glance at the present status of the disease throughout the world clearly indicates that present measures adopted for its prevention are inadequate, and in spite of the great progress that has been made, malaria is still one of the most widespread and disabling diseases of the human race.

The failure to eradicate malaria as a world menace may be attributed to the high cost of carrying out mosquito control measures that are necessary. Moreover, control measures are necessarily aimed directly at the species that are important vectors, and since many of the anophelines have not been adequately tested as to their effectiveness as vectors, progress through mosquito control is impossible until more complete information is available about the complex biological characteristics of all the potential vectors in the different countries where malaria is present.

NECESSITY FOR PROGRAM

The necessity for a malaria control program arose primarily because of the four following reasons:

1. Troops that have been on foreign service in malarious areas are returning to the United States infected with malaria.
2. Large concentrations of troops undergoing training are located in malarious areas in continental United States.
3. Large concentrations of war workers exist in malarious areas within the United States.
4. The possibility exists of introducing new strains of malaria and new vectors which, together with the three existing conditions just stated, could possibly result in an epidemic of malaria of a magnitude heretofore unknown.

Read before the Section of Public Health, State Medical Association of Texas, Austin, April 19, 1944.

ORIGIN OF MALARIA CONTROL IN WAR AREAS

The Malaria Control in War Areas program (hereinafter referred to as MCWA), together with the antimalarial measures carried out by the Army and the Navy within military and naval reservations, is playing a large part in preventing the spread of malaria among the armed forces and the workers in vital war industries. Following the declaration of war, funds were allocated to the Public Health Service for direct operation of antimalarial measures in war areas. Headquarters for this activity were established in Atlanta, Georgia, in March, 1942. Operations are now conducted in twenty-two States and in Puerto Rico. In addition, mobile units are being formed to operate in several additional states. The Texas State Department of Health was among the vanguard of the progressive states which recognized the importance of antimalarial measures, and participated wholeheartedly in the initiation of the program. The fortunate existence of an extensive malaria control program in Texas greatly facilitated the conversion of effort to the federally coördinated program. Some of the specific benefits derived from the previous work in Texas will be pointed out in later sections of this paper.

Intensification of the war effort during the fiscal year 1943 brought ever larger concentrations of military and industrial manpower into potentially malarious areas. Coincident with the increased need for control activities, technical staffs of the Texas State Health Department were rapidly depleted by transfer to the armed forces. The MCWA program was therefore extended, and supplemental personnel was employed and trained by the State Health Department.

The incidence of malaria in the United States at the beginning of the war emergency was the lowest in history. The fundamental purpose of the MCWA program is to maintain the low malaria incidence throughout the period of military and industrial mobilization. Specifically, the enterprise is designed to control production of malaria mosquitoes and thus reduce the danger of malaria transmission in extra-cantonment zones and essential war-industry areas. Operation of the

projects in all states is through the State Health Department. In Texas, Dr. George W. Cox, State Health Officer, was designated as the State MCWA Director, and Mr. L. J. Trotti as Assistant State Director in immediate charge of all operations.

The organization and operation of the MCWA program is predicated on the concept that effective protection of the armed forces should be provided with the minimum utilization of manpower and materials. These criteria replace monetary considerations as the determining factor in deciding the locale and extent of operations.

The MCWA program involves close coördination of the medical, engineering and entomological services essential to an effective and well-balanced malaria control program. In view of the fact that no therapeutic, immunological, or other medical treatment has been discovered to accomplish malaria control, the elimination of the insect vector must still be considered the most effective means of controlling malaria. The three services, entomological, engineering and medical, are considered in the following discussion.

ENTOMOLOGICAL SERVICE

The principal method of malaria control practiced in the MCWA program is that of attacking the mosquito vector; hence, it is essential that the work be based on knowledge of the habits of the specific anopheline concerned. Such an approach is fundamental in any insect control work. Entomological services therefore have been provided for the purpose of gathering and interpreting entomological data for use in guiding mosquito control operations and evaluating results. On the basis of the information provided by these services, the MCWA program is able to effect the following procedures:

1. To limit control work to those localities where density of the vectors was sufficiently high to constitute a malaria hazard.

2. To limit work in such areas to the specific breeding places of the species involved.

3. To limit the frequency of larvicide application so that unnecessary work is not done.

4. To determine the effectiveness of routine control operations so that supplementary measures or revised procedures can be instituted immediately when indicated.

The benefits to the control program from adequate entomological services have been numerous and varied. Projects of little or no merit which were undertaken in the initial rush of organization have been decreased in size or terminated. New projects are not undertaken in areas where sufficient justification cannot be established; in doubtful cases the area is kept under entomological surveillance until a decision can be made. Savings resulting from this type of analysis have ranged from $10,000 where small projects were concerned to $100,000 or more where large operations were involved. When the order of April, 1942, was received, allotting a definite manpower quota to the MCWA program, the entomological records of conditions in all the areas where projects were under way or contemplated, provided a valuable guide in determining equitable distribution of the manpower allotment. The vectors of malaria against which control has been undertaken are Anopheles quadrimaculatus in the Southern States, Anopheles freeborni on the Pacific Coast, and Anopheles albimanus in Puerto Rico and the lower Rio Grande Valley. Thus Texas is unique in having two anopheline vectors well established; *i. e.*, A. quadrimaculatus and A. albimanus; and with the third anopheline vector, A. freeborni, reported from the vicinity of El Paso. Specific control of these anophelines is possible because their habits are rather well known as a result of investigations during recent years. Although the habits of these three species differ to some extent, for the purpose of this report only those of Anopheles quadrimaculatus will be considered, as this species is the most widespread and abundant of the vectors.

Anopheles quadrimaculatus is essentially a pond breeder, preferring rather quiet, neutral or alkaline waters containing an abundance of protective vegetation or floating matter. Although it is possible to classify breeding waters on the basis of various environmental factors, it has not been found advisable to attempt such a classification for control purposes. Rather, the specific quadrimaculatus breeding areas have been determined by intensively searching for larvae in all likely breeding waters and identifying any larvae found. This survey work is done, not once, but periodically throughout the season in order to make certain that all active anopheline breeding places are known.

Anopheles quadrimaculatus adults rest during the day in such haunts as barns, privies and hollow trees, where cool, dark, quiet conditions exist. The number of mosquitoes found in such places give a reliable index of their density in the surrounding area, and thus provides a means of gauging the effectiveness of the control work in decreasing the adult anopheline populations. Counts of anophelines, therefore, are made periodically in such resting places. Anopheles quadrimaculatus density can also be gauged by the use of mechanical light traps or by

supplying and keeping under surveillance artificial resting places; both of these methods have been used to a limited extent in this program.

As the flight range of Anopheles quadrimaculatus under ordinary conditions is limited to about one mile, it is necessary to control breeding only within a one-mile radius of the area in which protection is desired. Therefore, in organizing projects for control or survey purposes, the first step is to find all actual or potential breeding areas within a one-mile radius, describe them briefly, and locate them on maps so they can be found easily for subsequent examination and treatment whenever necessary.

In determining the need for anopheline control around war areas in the states which comprise the malaria belt, the presence of even moderate numbers of Anopheles quadrimaculatus in and about the war establishment is taken as justification for control, whereas in areas outside the malaria belt the presence of the same or even greater numbers of this species is not considered cause for alarm. Under the latter conditions it is usually recommended that the area be kept under close observation but that no control work be undertaken unless there is evidence of malaria transmission or a notable increase in quadrimaculatus prevalence.

A number of places are under surveillance at present where, on account of previous malaria history, there is a possibility that malaria may become epidemic. There is also the possibility that new strains of the parasite may be introduced by returning troops or war workers. In cases of this kind, careful surveys are made in order to have information available for immediate use if control should become necessary.

ENGINEERING SERVICES

The malaria control engineer, utilizing entomological and medical data, decides on the method of attack, puts it into effect, and furnishes the technical supervision necessary for the successful conduct of the work. In the MCWA program, the functions of the Engineering Section are:

1. To make the necessary engineering surveys.
2. To decide on the most feasible and economical plan of operation.
3. To initiate control work.
4. To guide the control operations so that they function efficiently and effectively.
5. To handle, at the area and state level, the operational and executive details necessary to the smooth functioning of the program.

During the fiscal year 1943 the methods generally used for control of malaria in territories adjacent to Army, Navy and industrial war establishments were: (1) destruction of mosquito larvae by larvicides; (2) elimination of mosquito breeding areas by drainage or filling; and (3) killing of adult mosquitoes by spraying.

Project proposals, originated by the state health departments, covered three types of activities:

1. Larvicidal and minor drainage projects which utilized periodic larvicidal applications to control production of the malaria vector. Minor drainage and clearing operations incidental to, and necessary for, the efficient operation of the larvicidal program were performed as part of these projects. Where insecticidal spraying for the control of engorged adults was utilized, it was included under this type of project.
2. Major drainage and clearing projects which depended on drainage, clearing, or filling as the major factor in achieving control of anopheline breeding.
3. Inspection projects in which no larvicidal or drainage work was indicated at the time but for which entomological and/or medical observation were deemed necessary to determine whether control should be instituted. Inspectional services varied from regular routine inspection at weekly intervals to occasional inspections.

The application of larvicides is the primary method of control used in this program. Although this is somewhat contrary to the usual practice in normal malaria control operations in which main reliance is placed on control by drainage and filling, the emergency nature of this program and the temporary character of most of the war establishments being protected, made it advisable to use larvicides to control anopheline production where effective control could be achieved by such measures.

The effectiveness of larvicidal operations increased during the year as the experience and training of the personnel progressed. Special investigations were made when control work did not effect reductions in density. For example, when "quad" counts in a certain war era continued to rise despite regular and proper larviciding, the oil was found to have poor spreading qualities and very little odor. A toxicity test made with culicine and anopheline larvae resulted in practically no mortality after an hour, indicating noncompliance with the specifications under which the oil was purchased. Because of the present oil shortage, it was found in many instances that the oil supplied did not conform to the specifications for an efficient larvicide. Precautions are taken to check all

larvicide oils to insure satisfactory larvicidal qualities.

Minor drainage and clearing operations incidental to the prosecution of larvicidal control were carried on with the same personnel used for spraying and dusting. Breeding areas were kept under close inspection and only places actually breeding "quads" were larvicided. A variable number of man-hours not needed for larvicidal or clearing work was available each week and was utilized for the digging of relatively small, open earth ditches which served to reduce the magnitude of the breeding area.

Major drainage was limited to those areas where effective control could not be achieved by larviciding and where the cost of effective larviciding was so great that drainage was obviously more economical. Such work was not undertaken where it would result in competition for essential industrial and agricultural labor, or for critical equipment. Of great benefit, however, is the existence of many miles of concrete and rock-lined drainage ditches in numerous Texas cities now concentration points of industrial workers and military personnel. Coincident with these prewar state drainage projects, educational programs in malaria control were advanced by the State Health Department.

MEDICAL SERVICES

Of the three professions forming an effective malaria control team, the medical group is concerned most directly with the actual disease problem. The medical activities of MCWA do not involve treatment of cases because in the present situation the use of drugs as part of an emergency preventive program is not practical. Since the prophylactic action of available drugs is not sufficiently effective to make them useful in the area covered by this program, the Medical Section has restricted itself to keeping informed of research developments in this field.

The principal function of the Medical Section has been to assemble information which would provide a factual basis for appraising the disease hazard in a particular locality. Available information and present techniques do not permit exact knowledge of this kind. In appraising the malaria hazard in a community, the information of most immediate value is the incidence and distribution of malaria cases. The chief sources of such data are statistical reports of cases and deaths, and thick-film blood surveys of groups of the population. Such data alone do not, however, give a clear indication of the malaria hazard; they must be interpreted in the light of every known factor related to malaria transmission.

The past history of malaria in the area and the cyclic nature of the disease must be considered. Another factor to be reckoned with is extensive movements of population, such as are now occurring. Hundreds of thousands of persons who have never been exposed to malaria, and who may be considered "susceptibles," are moving into malarious areas; many persons with latent infections (carriers) are moving into areas where malaria has been absent for years but where conditions favorable to transmission exist. The possibility of the introduction of new strains of the disease by military personnel returning from the tropics is of major concern at the present time.

Essentially, medical information permits the designation of areas which are potentially malarious. Whether or not such areas are subjected to control measures is determined on the basis of the density of the mosquito vector as demonstrated by entomological surveys. In some border line instances, where the potential hazard is difficult to determine, the type of war establishment and the number of persons involved become the deciding factor.

Another function of the medical section is keeping alert to other mosquito-borne disease problems and keeping up generally with progress in the field of malaria. During the year special studies were made and reports prepared on the other mosquito-borne diseases—yellow fever, dengue and encephalitis.

HOW THE PROGRAM WORKS

The preceding discussion has described the necessity, origin and organization of malaria control in war areas. The succeeding portion of this manuscript will describe the actual operation within the state.

The present Malaria Control in War Areas program in Texas is a joint undertaking of the Public Health Service and the State Health Department, with the organization of the entire MCWA program coördinated through the MCWA Headquarters Office in Atlanta, Georgia. U. S. Public Health personnel assigned to the State of Texas and responsible to the State Health Officer, Dr. George W. Cox, and under the immediate supervision of Assistant State Director L. J. Trotti, include engineers, entomologists, and sufficient clerical personnel to discharge routine duties in the State Office regarding payrolls, personnel records, equipment and supplies.

Proceeding further with the organization within the state, the counties in which malaria control projects are to be operated are grouped into areas. Each area is further subdivided into zones. Each zone is essentially a military establishment, an industrial establishment, or a war housing establish-

ment, and represents a malaria control project.

The state engineering service is responsible for the preparation and operation of larvicidal, minor drainage and major drainage projects in each area.

The state entomological service is responsible for area entomological service, mosquito surveys, collections, reporting, and identification for the zones in each area. Within each area, the engineering service represented by the area supervisor, is responsible for maintaining malaria control projects, and is responsible to the state office.

The entomological service within each area is represented by the area inspector, who is responsible to the area supervisor.

EFFECTIVENESS OF THE MCWA PROGRAM

Entomological records received during the 1942 breeding season indicate that MCWA control work throughout the coöperating states was effective in satisfactorily reducing the densities of Anopheles quadrimaculatus in approximately 92 per cent of the war establishments protected by the MCWA program. The remaining 8 per cent showed periods during the season when anopheline densities were considered to be sufficiently high to create a potential malaria hazard. The 1943 figures, while not available at present, are even more favorable than those of 1942.

ABSTRACT OF DISCUSSION

Dr. Elton S. Osborne, Port Neches: The importance and necessity of conducting adequate and extensive malaria control projects in the malarious regions of the United States cannot be over emphasized. Malaria is a decided menace to the people in any country in which it is more or less endemic, and now that we are engaged in total war, the needs for adequate control measures are imperative. In the amount of sickness and suffering, the loss of time and efficiency, and in the lowered vitality of those affected, malaria has proven itself as without a rival among those diseases affecting man. It is the spread of this disease which is thought to have brought about the downfall of ancient Greece and Rome.

As Mr. Trotti's paper pointed out, the "Malaria Control in War Areas" projects were established for the protection of the health and comfort of military personnel and of those individuals employed in national war plants throughout the malarious regions of the United States. Three such projects were placed in operation in Orange and Jefferson counties in the spring of 1942 for the protection of the health and well being of those employed in our vital war industries. The justification for these projects was derived as a result of history surveys and as a result of Anopheline quadrimaculatus surveys throughout this endemic malaria region of East Texas. However, these surveys do not present a true picture of the amount of malaria present in the area. This is true because of the relative few individuals who, when symptoms occur, will seek the advice and services of qualified physicians; because of the number who, at the first signs of spring and the recurrence of a slight fever, automatically reach for their bottle of chill tonic.

The necessity for this preventive program in attempting to maintain a strong and healthy army, and in attempting to reduce absenteeism and increase efficiency in our national war plants is now assuming importance of greater magnitude than heretofore because of the possibilities of introducing not only new species of the Anopheline mosquito into the country by the airplane, but also by the probability of the introduction of new and more virulent strains of the disease into this country by returning troops from all over the world who have become infected with malaria. The latter possibilities cannot be overstressed when we realize that it has been estimated that 80 per cent of those Americans of Bataan and Corregidor were sick and ill with malaria and dysentery at the time of their capture.

V. M. Ehlers (C. E.), Austin: Both Mr. Trotti and Dr. Osborne have emphasized that malaria is still a problem with us. Although the malaria rates have been high on some of the fighting fronts, the latest reports indicate fairly good success in reducing the incidence, and the record of accomplishment here in the war areas certainly indicates the value of control work. I am told that the rates in the continental United States in war areas is about one-half of what it was in 1917 and 1918.

The aerosol bombs that have been developed are said to be quite efficient when used within enclosures.

All of us will look forward with a great deal of interest to a real test of the efficiency of DDT. when used as a larvicide.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, May 7, 8, 9, 10, 1945. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association. Dr. Edgar G. Ballenger, Atlanta, Ga., President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society, San Antonio, December 7-8. Dr. M. K. McCullough, Dallas, President; Dr. E. D. Dumas, San Antonio, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists, Fort Worth, February. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, San Antonio, fall, 1945. Dr. Allen Stewart, Lubbock, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association, Galveston, May 7, 1945. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 27, 1946. Dr. May Owen, Fort Worth, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, May 7, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.
Texas Society for Mental Hygiene. Dr. Charles W. Castner, Capitol Building, Austin, President; Miss Jennie S. Wilmot, University of Texas, Austin, Secretary.
Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.
Texas Tuberculosis Association. Dr. J. B. White, Amarillo, President; Miss Pansy Nichols, Austin, Executive Secretary.
Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love. City Hall, Waco, Secretary.
Texas Chapter American College of Chest Physicians, Galveston, May 7. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.
Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.
Third, Panhandle, District Medical Society, Amarillo, April 10-11. Dr. D. D. Cross, Lubbock, President; Dr. George Powers, Amarillo, Acting Secretary.
Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.
Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.
Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.
Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.
Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.
Twelfth, Central Texas, District Society, Marlin, July 10. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.
Thirteenth, Northwestern, District Society. Dr. J. W. Foy, Seymour, President; Dr. Joe R. Wise, 1212 W. Lancaster, Fort Worth, Secretary.
Fourteenth District Society, Dallas, June, 1945. Dr. W. C. Morrow, Greenville, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.
Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

EIGHTH DISTRICT MEDICAL MEETING

In response to a request of President Dr. H. F. Connally of Waco for a district meeting for the discussion of public relations and legislative matters, physicians of the Eighth District met January 16, at the Manhattan Cafe, Victoria, with an attendance of forty-five, representing practically every section of the district. Guests from Houston included Dr. C. C. Cody, President-elect of the State Association; Dr. John T. Moore, and Dr. James A. Greene, Professor of Medicine, Baylor University College of Medicine.

Dr. Merton M. Minter, San Antonio, a member of the Public Relations Committee of the State Medical Association, spoke on, "Public Relations for the Medical Profession."

Dr. C. C. Cody spoke on "Prepayment Plans in Medical Practice."

Dr. H. F. Connally spoke on "Legislative Programs and Problems."

A discussion period followed each address. The meeting was considered both timely and informative, and was highly appreciated by those attending.

Arrangements for the meeting were made by Dr. F. J. L. Blassingame, Councilor of the Eighth District.

NEW CONCEPT OF SURGERY

A new concept of army surgery—aimed at full restoration of health rather than mere saving of life—is revolutionizing the management of wounds in France and Italy, according to a report prepared by Colonel Edward D. Churchill, M. C., surgical consultant of the Mediterranean Theater of Operations. The new techniques, grouped under the term "reparative surgery," are designed to prevent infection before it is established or cut it short at the period of its inception. Colonel Churchill emphasized a new "golden period"—the time between initial surgery and reparative surgery. The report summarized the developments as follows:

"In this war there have been two quite different approaches to the application of chemotherapeutic agents to military surgery. The first would utilize these agents to permit delay in wound surgery and minimize the incision of tissue destroyed by the missile. The second employs chemotherapy to extend the scope of surgery and achieve a perfection in results previously considered impossible.

"The latter policy has guided the surgery of the Mediterranean Theater. To reiterate the axiom that penicillin is not a substitute for surgery is not enough. Every surgeon must learn that chemotherapy opens new and startling possibilities in wound management.

"To realize fully the potentialities of reparative surgery requires the introduction of a new concept in the organization of military surgery. Four to ten days is the 'golden period' during which time wounds must be closed, fractures reduced, retained missiles removed and other procedures to prevent or abort infection must be carried out.

"Failure to take cognizance of the potentialities of early reparative surgery at the base in future plans and operations will be as glaring an omission as a failure to plan for the removal of the wounded from the field of battle."—*News Notes*, S. G. O., Nov. 16, 1944.

VIRUS TYPE EQUINE ENCEPHALOMYELITIS

All three types of equine encephalomyelitis viruses known to be present in the Western Hemisphere are capable of producing fatal encephalitis in man, according to Colonel Raymond Randall, V. C., of the Army Veterinary School at Washington, D. C. In a paper presented at the annual meeting of the Association of Military Surgeons, Colonel Randall pointed out that the relatively high mortality rate of the human disease emphasizes the importance of this horse disease from the public health standpoint.

In 1941 more than 3,000 human cases were reported in the United States and Canada. Most of them occurred in North Dakota, South Dakota, Nebraska and Canada, North Dakota having the highest incidence with 1,080 cases and 96 deaths. Cases were also reported from California and Washington. The mortality rate among the human cases varied in different areas from 8 to 20 per cent, adult male farm workers having the highest incidence. This is in contrast with the Eastern type infection which in the outbreaks thus far recorded was predominantly a disease of children and had a mortality rate of approximately 75 per cent. In many instances during the midwestern epidemic of 1941, the Western type encephalomyelitis virus was isolated and it appears that the St. Louis encephalitis virus played a very minor role in the outbreak.

The evidence is ample, Colonel Randall said, that equine encephalomyelitis is transmitted by insects, particularly mosquitoes, and its control involves antimosquito measures. Horses and mules may be protected against the disease by the annual administration of chick tissue vaccines. A vaccine suitable for human use has been developed in the Army Veterinary School, Colonel Randall said, and can be made available if indications for its use should develop.—*News Notes*, S. G. O., Nov. 16, 1944.

INTERNATIONAL MEDICAL CONGRESS CANCELLED

The International Medical Congress scheduled to be held February 26 and 27 at Laredo, has been cancelled in coöperation with the government's desire to curtail transportation not directly concerned with the war effort. Meetings of the Congress will be resumed after the war, and from interest exhibited by physicians of the United States and Mexico, should be productive of improved medical conditions in this country and Mexico.

Sponsors of the International Medical Congress are the State Medical Association of Texas, Southwest Texas District Medical Society, Texas Tuberculosis Association, National Tuberculosis Association, the American Trudeau Society, the United States Public Health Service and the Pan-American Sanitary Bureau.

PENICILLIN FOR EMPYEMA

Penicillin administered, by injection into a muscle, for one week before and for two weeks after the partial or total surgical removal of the lung appears to be useful in preventing pyogenic (pus-producing) infections following the operation, nine Philadelphia investigators report in *The Journal of the American Medical Association* for December 16. Their report is based on results obtained in a study of 41 patients, 21 of whom received the penicillin treatment, and 20 of whom served as controls.

The report is made by William L. White, M. D.; W. Emory Burnett, M. D.; Charles P. Bailey, M. D.; George P. Rosemond, M. D.; Charles W. Norris, M. D.; Grant O. Favorite, M. D.; Earl H. Spaulding, Ph. D.; Amedeo Bondi, Jr., Ph. D., and Russell Fowler.

None of the patients receiving penicillin prophylactically showed evidence of empyema, the investigators say, while 12, or 60 per cent, of the controls developed pus in the pleural or chest cavity. Patients with pus producing lung infections who had part or all of the lung removed and who received the penicillin not only showed no evidence of postoperative infection, but also had less fever, were allowed out of bed earlier and were discharged sooner than control patients. No toxic reactions were noted in the penicillin patients.

DALLAS ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY MEETING

The Dallas Academy of Ophthalmology and Otolaryngology will meet March 6, at the Dallas Athletic Club, with Major James R. Dowling, M. C., and Lt. Colonel Henry C. Smith, M. C., both of McCloskey General Hospital, Temple, and Lt. Colonel Henry M. Winans, M. C., Brooks Field, San Antonio, as guest speakers. A dinner will be held at 6:30 honoring the guest speakers.

A symposium on head and face pain will be presented by the guest speakers. Major Dowling will discuss the subject from the standpoint of the otolaryngologist, Colonel Smith from the standpoint of the ophthalmologist, and Colonel Winans from the standpoint of the internist. Dr. O. M. Marchman will act as commentator, and Dr. Ben R. Buford is scheduled as a discusser.

All reservations for the dinner must be made in advance. Any member of the State Medical Association is cordially invited.

GENERAL LULL ADDRESSES SOUTHWESTERN MEDICAL COLLEGE GRADUATES

In his address to the graduating class of Southwestern University Medical School at Dallas, Texas, Major General George F. Lull, U. S. A., Deputy Surgeon General, sketched the work of the Army Medical Department in wartime.

Pointing out that treatment and evacuation of wounded must go hand in hand, General Lull described how the problem of saving lives varies in different theaters of war. He contrasted the carefully planned, smoothly regulated chain of evacuation from the Normandy Beachhead with the difficulties under which wounded were evacuated in some Southwest Pacific areas where "small portable hospitals had to be carried forward over mountain trails through jungle to the rear of the fighting troops" and "cases were operated on in the jungle and had to be carried for miles until they could be placed in jeeps."

The reasons for lower mortality rates compared to World War I may be charged to three things, General Lull said: better surgery, done earlier; blood plasma; and chemotherapy. In connection with the latter he stated that the results of the so-called sulfa drugs have been much more spectacular in medicine than in surgery, and cited the lowering of the mortality rate for cerebrospinal meningitis of meningococcic origin to less than one-fourth what it was in World War I, and that of pneumonia from 35 per cent in the last war to under 1 per cent. Penicillin, too, he said, had proven its worth in many types of medical cases, notably in the venereal diseases. "Of course," he added, "one of the most important functions of the Medical Department is the prevention of disease. Great strides have been made in this field during the present war."

In conclusion General Lull warned that the load of casualties returned to this country will not reach its peak until long after hostilities cease and the need for medical, dental and nursing care will continue for many months after the armistice is signed. —*S. G. O. News Notes*, Dec. 30, 1944.

PENICILLIN TREATMENT OF YAWS

The Surgeon General's Office, in coöperation with the Office of the Coördinator of Inter-American Affairs and the Army Epidemiological Board has organized a joint project in Haiti to study the effect of penicillin in the treatment and control of yaws. Yaws is endemic in certain sections of Haiti and the large number of cases affords an excellent reservoir of clinical material for study.—*S. G. O. Notes*, Dec. 30, 1944.

NO CURE FOR LEUKEMIA

"There is no new drug which offers any hope in the treatment of acute leukemia *The Journal of the American Medical Association* for December 9 says in answer to an inquiry. "Reports of cures or new treatments of leukemia appear frequently in the press. The index of one large newspaper contains seven reports of new treatments for leukemia in the past six years; none of these have proved successful. If a specific agent for leukemia is discovered, it would undoubtedly receive prompt recognition in *The Journal.*"

BRITISH MOTION PICTURE FILM AVAILABLE

"Back to Normal" is the title of a 16 mm. sound motion picture film which is now available for loan through the courtesy of British Information Services, Film Division, 513 Cotton Exchange Building, Houston 2, Texas. The film reveals the part played by modern science in the making and fitting of artificial limbs, by means of which disabled persons are able to follow previous occupations or work at new trades taught them at government training centers.

The characters shown in the film are former patients of Roe Hampton Hospital, one of Britain's hospitals devoted to the treatment of limbless war casualties—men, women and children. A woman who lost a leg during the blitz, is seen actively taking care of her home and family. A young couple is seen dancing, the man having lost both legs while serving in the Navy, the girl having lost one leg in an air raid. Many other similar examples are shown. The film shows how disabled persons are taught to use artificial limbs and how men with artificial limbs are able to work at engineering, carpentry, painting and decorating, all highly skilled occupations.

Full information regarding the borrowing of this and other films may be secured from British Information Services, Film Division, at the address given.

EXCRETION OF VIRUS OF POLIOMYELITIS

In a study of the duration of excretion of the virus of infantile paralysis in the stools of 61 patients, it was found that the excretion extends into the seventh and eighth weeks after the onset of the disease in an appreciable percentage of cases, which is contrary to the prevalent concept that stools commonly contain the agent for three to four weeks following the onset but rarely thereafter, three Yale University School of Medicine investigators report in *The Journal of the American Medical Association* for December 23. They say that the results provide no evidence for the existence of persistent carriers of poliomyelitis virus but it is possible that failure to demonstrate such carriers was due to the relatively small number of subjects studied.

The study was conducted by Dorothy M. Horstmann, M. D., Robert Ward, M. D., and Joseph L. Melnick, Ph. D., New Haven, Conn.

They found that 61 per cent of the patients excreted virus during the first two weeks after onset of the disease, 50 per cent during the third and fourth weeks, 27 per cent at the fifth and sixth weeks, 12.5 per cent at the seventh and eighth weeks. Between the ninth and twenty-fourth weeks virus was detected in only one of 52 specimens tested, this positive result coming from a boy 8 years old in the twelfth week of the disease.

INDUSTRIAL REHABILITATION OF VETERANS

In the absence of an intrinsic medical department, some local Veterans' Adiminstration office must function to evaluate physically and mentally the proper placement of the veteran in industry and this agency is urgently needed now, J. F. Johnson, M. D., Trenton, N. J., declares in *The Journal of the American Medical Association* for December 23. Dr. Johnson's paper presented with the coöperation of H. V. Hoffman, of Trenton, is based on personal observations as a physician with one of the divisions of General Motors Corporation. He also says the Veterans' Administration should be informing industrial plants as to what to do with a veteran who has either an emergency illness or needs medical or welfare help.

SYMPATHECTOMY REPORTED EFFECTIVE FOR CAUSALGIA

Severing of those sympathetic nerves that control certain sensations in the extremity involved is a highly dependable form of treatment for causalgia, one of the most painful of afflictions in which there is an intense local sensation of burning pain, two army surgeons report in *The Journal of the American Medical Association* for January 6.

Captain I. Joshua Speigel and Captain Jack L. Milowsky, Medical Corps, Army of the United States, report 9 cases of causalgia, all following battle wounds. Eight were in the upper extremity and 1 in the lower.

"Seven patients were completely and thus far permanently relieved of pain by surgical sympathectomy," the two men say.

Of the remaining 2 patients, 1 was almost completely relieved by block of the involved sympathetic nerves with procaine. The other patient, for whom sympathectomy was not done for technical reasons, has been completely relieved over a period of four and one-half months by alcohol block, the surgeons report. The exact cause of causalgia has not been fully determined.

PENICILLIN FOR TETANUS

"In view of the high mortality of tetanus, even when treated with large doses of tetanus antitoxin, the addition of pencillin is apparently a life saving measure," Russell Buxton, M. D., and Rachelle Kurman, M. D., Newport News, Va., report in *The Journal of the American Medical Association* for January 6. They tell of 2 patients in whom the disease was well advanced when the combination treatment was started. Both recovered.

PRIMARY CANCER OF THE LUNG

An otherwise fatal disease, primary cancer of the lung, can be satisfactorily treated by surgical removal of the entire lung, William Francis Reinhoff, Jr., M. D., Baltimore, advises in *The Journal of the American Medical Association* for December 30. Surgical measures short of total removal of the lung are not efficacious, he says. Postoperative mortality and longevity are at least as good, if not better than those following the same treatment for cancer of other organs of the body.

PENICILLIN FOR PERITONITIS

Investigations with animals indicate that penicillin should prove to be effective as an adjunct to surgery in the treatment of battle wounds of the abdomen and appendicitis and its complications, such as peritonitis, Lieutenant Commanders G. B. Fauley and T. L. Duggan, U. S. N. R.; Lieutenant (jg) R. T. Stormont, U. S. N. R., and Lieutenant C. C. Pfeiffer, U. S. N. R., report in *The Journal of the American Medical Association* for December 30.

In China disease is much more prevalent than it is here. Cholera is reported every year; there were 100,000 cases in 1932, 65,000 cases in 1942, 17,000 cases in 1943. Bubonic plague had approximately 6,000 cases in 1942. It is estimated that there are about 6,000,000 cases of dysentery annually, 90 per cent bacillary, 10 per cent amebic. The estimated number of cases per annum of typhoid fever is 700,000; of smallpox, 500,000; of diphtheria, 360,000; of scarlet fever, 180,000. Epidemic meningitis is estimated at 100,000 cases per annum; malaria, 21,000,000 cases per annum; schistosomiasis, 10,000,000 cases per annum. Active tuberculosis is estimated at 36,000,000 cases, 8 per cent of the population. Under-nutrition is so widespread that no figures of any kind are available. —*Raymond B. Fosdick, L. L. D., Amer. Jour. P. H.*, Nov. 1944.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during January:

Lt. John B. Graham, Camp Maxey—*Kidneys, diseases* (24 articles).

Dr. J. T. Krueger, Lubbock—*Intestines, cancer* (12 articles).

Dr. C. B. Leggett, Abilene—*Narcolepsy* (8 articles).

Mrs. C. E. Southern, Burton—*War, medicine* (21 articles).

Maj. Alexander E. Pearce, El Paso—(1 journal).

Dr. J. W. Torbett, Marlin—(27 journals).

Dr. Wm. R. Klingensmith, Amarillo—*Prostate, surgery* (4 articles).

Dr. Wm. Hibbitts, Texarkana—*Pilonidal Sinus* (12 articles).

Dr. J. C. Terrell, Stephenville—(1 journal).

Dr. W. E. Schulkey, San Angelo—*Pruritus, anal* (16 articles).

Dr. T. P. Frizzell, Knox City—*Addison's Disease* (34 articles).

Dr. Frank A. Selecman, Dallas—*Thyroid, diseases* (22 articles).

San Antonio Aviation Cadet Center, San Antonio—(4 journals).

Dr. J. W. Gooch, Shamrock—*Aneurysm, aortic* (15 articles).

Capt. Chris G. Ronson, Camp Bowie—*Meningitis, influenzal* (11 articles); *Meningitis, therapy* (6 articles).

Dr. L. R. Byrd, Jr., Port Arthur—(2 journals).

Dr. L. E. Perry, Borger—*Intestines, diverticula* (20 articles).

Dr. A. L. Borchardt, Vernon—*Varicose Veins* (22 articles).

Dr. Roland F. Knox, Wichita Falls—*Menopause, disorders* (11 articles); *Vagina, inflammation* (5 articles); *Vulva, leukoplakia* (7 articles); *Prostate, cancer* (17 articles).

Dr. Heinrich Lamm, La Feria—(1 journal).

Dr. W. T. Sadler, Merkel—*Endocrine Glands, interrelationships* (5 articles).

Dr. Marion R. Lawler, Mercedes—*Poliomyelitis, therapy* (27 articles).

Mr. Claude T. Riley, Donna—*Medicine, socialized* (20 articles).

Dr. J. W. Pittman, Belton—*Medicine, socialized* (11 articles).

Dr. W. S. Pedigo, Strawn—(1 journal).

Dr. Perry R. Jeter, Childress—*Undulant Fever* (28 articles).

Dr. J. T. Krueger, Lubbock—*Stomach, ulcers* (22 articles).

Dr. J. C. Crager, Beaumont—*Medicine, socialized* (24 articles); *Medical Service Plans* (19 articles).

Lt. Col. Paul G. F. Schmitt, Temple—(2 journals).

Dr. Octavio Garcia, McAllen—*Endometriosis* (12 articles); *Dysmenorrhea, therapy* (20 articles).

Southwestern Medical College, Dallas—(3 journals).

Dr. Chas. B. Reed, Clarksville—*Fistula, appendical* (5 articles).

Dr. A. D. Grisso, Fort Worth—(1 journal).

Lt. C. B. Wyngarden, Camp Maxey—(2 journals).

Dr. Doyle J. Doss, Lubbock—*Bones, marrow* (8 articles).

Dr. James J. Terrill, Dallas—*Curare* (8 articles).

Capt. M. D. Watkins, Mission—*Coccidioidosis* (16 articles).

Dr. Edgar Smith, Lockhart—*Arthritis, therapy* (26 articles).

Dr. Chas. B. Jones, Wellington—*Fallopian Tubes, insufflation* (9 articles).

Accessions

Baltimore, Williams & Wilkins—Craig: The Etiology, Diagnosis and Treatment of Amebiasis.

New York, J. Wiley & Sons—Chandler: Introduction to Parasitology, 7th edition.

Chicago, Year Book Publishers—Page and Corcoran: Arterial Hypertension.

New York, Arlington Chemical Company—Proteins and Amino Acids.

Summary

Reprints Received, 597	Local Users, 30
Journals Received, 189	Borrowers by Mail, 40
Items Consulted, 160	Packages Mailed, 49
Items Taken Out, 151	Items Mailed, 571

Total Items Consulted and Loaned, 882

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in technicolor, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during January:

Lions' Club Breckenridge—*Immunization against Infectious Diseases* (Available for loan through courtesy of Lederle Laboratories, Inc.).

Rotary Club, Breckenridge—*Immunization against Infectious Diseases* (Available for loan through courtesy of Lederle Laboratories, Inc.).

Breckenridge High School, Breckenridge—*Immunization against Infectious Diseases* (Available for loan through courtesy of Lederle Laboratories, Inc.).

Nueces County Medical Society, Corpus Christi—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Hidalgo-Starr Medical Society, Edinburg—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Edinburg High School, Edinburg—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Public School Health Nurses, Fort Worth—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

Navarro County Medical Society, Corsicana—*Modern Nutrition* (Available for loan through courtesy of E. R. Squibb & Company).

NEWS

Texas Hospital Staffs Elect 1945 Officers.—*Mercy Hospital* staff, Brownsville, elected the following officers at a recent meeting, informs the Brownsville *Herald:* Dr. B. M. Works, president; Dr. Vidal Longoria, vice-president; Dr. E. M. Carranza, secretary.

Bethania Hospital staff, Wichita Falls, elected the following officers for 1945 at the annual meeting, December 19, states the Wichita Falls *Times:* Dr. W. G. Harrison, president; Dr. J. A. Little, vice-president; Dr. Harry Ledbetter, secretary; Dr. J. R. Reagan, assistant secretary. Executive members named were Drs. G. T. Singleton, F. R. Landon, and J. A. Heymann.

Memorial Hospital staff, Houston, elected the following officers for 1945 at a meeting at the Rice Hotel, December 12, informs the Houston *Chronicle:* Dr. Mark Latimer, president; Dr. Abbe A. Ledbetter, vice-president; Dr. Thomas P. Kennerly, secretary. The election followed a dinner attended by 125 guests, who were introduced by Robert Jolly, superintendent of the hospital. Several musical numbers were given by the cadet nurse corps of the hospital's school of nursing.

Methodist Hospital staff, Houston, elected officers for 1945 at the annual dinner, with fifty members present, advises the Houston *Post:* Dr. L. L. Handly, president-elect; Dr. McDonald Orman, vice-president; Dr. Emile Zax, secretary. Dr. G. W. Waldron, president-elect during the past year, assumed the office of president at the dinner meeting.

Jefferson Davis Hospital staff, Houston, elected officers for 1945 at the recent staff meeting, reports the Houston *Press:* Dr John H. Wootters, chief of staff; Dr. H. J. Ehlers, vice-president; Dr. Ray G.

Collins, chief of medical division; Dr. W. S. Red, chief of surgical division; Dr. C. A. Calhoun, secretary.

Grayson County Auxiliary Pioneers In Support of Civilian Blood Bank.—The Woman's Auxiliary to the Grayson County Medical Society is pioneering not only for Texas but for the entire United States in promoting voluntary collection of glood for processing into plasma for civilian use, states the Denison *Herald.* There have been three collections for civilian use and five for the armed services since July 1943. In the three civilian collections, conducted under the sponsorship of the Auxiliary, 594 pints of blood were obtained, in coöperation with the William Buchanan Foundation at Dallas. In five collections of plasma for the armed services, in which the Auxiliary coöperated with the Red Cross, 3,518 pints of blood were obtained from 4,579 volunteer donors. In an 18-month period, Grayson County citizens have given 4,112 pints of blood for civilian and military use under the leadership of the Auxiliary, in coöperation with the Red Cross and Buchanan Foundation.

The collection and distribution of plasma for civilian use as conducted by the Buchanan Foundation is on a banking basis, and the advantages are that plasma is available in advance for any occasion, and on a reciprocal basis that reduces the usual substantial cost to practically a token fee. Ten per cent of all blood collected from residents of the county is retained in Grayson Hospitals after processing into plasma. In the case of an emergency, the county has established what may be called a credit account with the Buchanan Foundation, which permits it to draw far more blood than it has contributed, with provisions for repayment in the future. The value of the credit feature was demonstrated in the butane gas explosion case at Denison, November 21, 1944, when 122 units of plasma were rushed to Denison hospitals by the Buchanan Foundation. Under the Buchanan program, as worked out by Dr. J. M. Hill of Dallas, founder and director of the Foundation, a patient is charged $5.00 per unit and pledged to send two donors to the next blood collection. An additional transfusion charge is made by the hospital, which in Grayson County has been set at $2.50, making the cost of a one unit transfusion $7.50, as compared to the usual charge of $45.00 and higher elsewhere, on a strictly commercial basis.

The Grayson County Auxiliary distributes blanks to Grayson hospitals to be signed by transfusion patients who wish to take advantage of this opportunity. The Buchanan Foundation is a non-profit self-sustaining institution. The work during the past year has been under the direction of Mrs. Max C. Woodward, Sherman, president, and Mrs. E. L. Hailey, second vice-president of the Auxiliary, and Denison plasma chairman.

Southwestern Medical College Graduating Exercises.—Forty-six of fifty-seven graduates of Southwestern Medical College, Dallas, received commissions in the medical corps of the army at the graduating exercises, December 18, reports the Dallas *News.* One graduate was tendered a commission in the navy.

The commencement address was delivered by Major General George F. Lull, Deputy Surgeon General, United States Army. General Lull reviewed the work of medical officers during the present war in various theaters, calling attention to the splendid achievement in the reduction of mortality rates in World War 2 in comparison to World War I. He credited this accomplishment to better surgery, the use of blood plasma and whole blood in transfusions, and chemotherapy. Another highly important feature in mortality reduction has been rapid transportation of the wounded to hospitals, in which aviation has played an important part.

The award of Ho Din, offered by the Southwestern Medical Foundation to the student considered to have the best qualifications for a good doctor, was made by Dr. E. H. Cary, of Dallas, foundation president, to George Clifford Thorne, Lubbock. Honorary Ho Din keys were presented to Colonel Knox E. Miller, U. S. Public Health Service, and Dr. Tinsley R. Harrison, dean of Southwestern Medical College.

Preceding the awarding of the keys, a discussion of the attributes of a doctor as symbolized by Ho Din, was given by Colonel Walter C. Bauer, Eighth Service Command. Lt. B. E. Grossman, conferred commissions in the medical corps of the Army on forty-five graduates; Lieutenant Hugh B. Wood, commanding officer of the Navy V-12 unit, conferred a commission on one Navy graduate. Candidates for degrees were presented by Dr. Donald Slaughter, dean of students, Southwestern Medical College.

U. of T. Medical School News.—A grant of $500 was recently made by the Beaumont *Enterprise* to the University of Texas School of Medicine to support the research work of Dr. Edgar Poth, professor of surgery, particularly for the treatment of burns, states the Galveston *Tribune.* The occasion for the grant resulted from the interest aroused in the successful treatment of a badly burned small girl, daughter of a soldier in the South Pacific, resident of Beaumont. The grant will be known as the Beaumont community grant from the Blanche Marie Flowers fund.

Abbott Laboratories of Chicago recently made a grant of $1,800 to support research work in the department of internal medicine under the direction of Dr. C. T. Stone, professor of internal medicine.

The national livestock and meat packers board of Chicago recently made a grant of $7,000 to the university child health program, to support nutritional studies of children, under the direction of Dr. Arild Hansen, professor of pediatrics.

A conference on the clinical significance of Rh factors, called at the suggestion of laboratory workers and military hospitals in Texas, was held February 9 and 10, at the University of Texas School of Medicine, Galveston. The conference was under the general direction of Dr. J. G. Sinclair, professor of anatomy, and Dr. Henry H. Sweets, director of the John Sealy Clinical Laboratories.

The John and Mary R. Markle Foundation of New York has given a grant of $2,500 to support the work of Doctor Eric Ogden, professor of physiology, on blood flow and hypertension.

The John and Mary R. Markle Foundation has made a grant of $3,300 for the support of studies on filariasis, to be made by Dr. J. Allen Scott, associate professor of epidemiology and preventive medicine, University of Texas Medical Branch, Galveston.

Dr. A. G. Ochoa, in charge of research on fungus diseases at the Institute of Tropical Medicine at Mexico City, Mexico, has been making a survey of work in that field at the University of Texas School of Medicine, at the suggestion of the State Department of Health of Texas, according to the Galveston *News.* Dr. Ochoa is particularly interested in the work of Dr. Charles M. Pomerat, professor of anatomy, on tissue culture, and of Dr. Ludwick Anigstein, associate professor of tropical medicine, on typhus fever and related diseases. Dr. Ochoa is especially interested in fungus diseases of the lung which simulate tuberculosis.

Dr. J. Allen Scott, associate professor of preventive medicine and epidemiology, has returned from a two months' trip to Brazil, where he was sent as a special technical consultant, informs the Galves-

ton *News*. Dr. Scott is an authority on epidemic and parasitic diseases. Prior to his connection with the University School of Medicine, he worked with the Rockefeller Foundation at Cairo, Egypt, as statistician and epidemiologist and has done considerable work in parasitic diseases and on hookworm surveys in the South. While in Brazil Dr. Scott conferred with medical leaders on general health programs and studied epidemic and parasitic diseases in the Amazon and in southern sections of Brazil.

An Institute for Training of Tuberculosis Workers will be held March 12 to 16, inclusive, in Austin. Since the Texas Tuberculosis Association will likely not hold an annual meeting, the institute will offer the only opportunity for tuberculosis workers to get together for a discussion of mutual problems and program. Lecturers at the institute will include Dr. W. A. Doppler, of the National Tuberculosis Association, and Dr. Howard Smith of the State Health Department. Applications for admission to the Institute should be addressed to Miss Pansy Nichols, Executive Secretary, Texas Tuberculosis Association, 700 Brazos Street, Austin 22, Texas.

Gifts to the Southwestern Medical College Library.—The library of the Southwestern Medical College, Dallas, established in June, 1943, now has more than 5,000 bound volumes in its collection. It is receiving currently 239 scientific and medical journals, including nineteen Latin-American publications. Funds for the addition of and continued subscriptions to ten new journals has been given the Library by the Phi Beta Pi and Phi Chi Medical Fraternities.

The Medical Service Society, an organization formed in Dallas by representatives of pharmaceutical manufacturing companies, has recently purchased thirty-two books for the Library. The Society plans to supply funds for the purchase of newly published books contributing to medical knowledge, which will become a permanent part of the library collection.

The Texas Association of Obstetricians and Gynecologists held its fifteenth annual meeting at the Southwestern Medical College, Dallas, November 22, 1944, with Dr. E. D. Plass, professor of obstetrics and gynecology at the University of Iowa, as honor guest. The meeting was well attended and an excellent program was carried out. The evening session was held in the Baker Hotel, following a dinner.

Officers of the Society are Dr. Allen Stewart, Lubbock, president; Dr. Allen McMurray, Houston, president-elect; Dr. J. E. Kanatser, Wichita Falls, vice-president; and Dr. Julius McIver, Dallas, secretary.

The Executive Council of the Society is composed of Dr. Minnie L. Maffett, Dr. J. N. Burditt, Dr. Truman Morris, Dr. T. F. Brinkley, Dr. Milton Davidson, Dr. E. H. Marek. The society will hold its next meeting in San Antonio in the fall, probably, November. Dr. Ben Passmore, San Antonio, is local chairman of arrangements.

The Executive Council will hold a meeting in Galvestion at the time of the meeting of the State Medical Association.

The Texas Ophthalmological and Otolaryngological Society met December 8 and 9, 1944, at the Blackstone Hotel, Fort Worth. The following scientific program was carried out during the two days:

DECEMBER 8

Pressure Treatment of the Mucosa of the Maxillary Sinus—J. M. Robison, M. D., Houston.
Discussed by Wm. D. Gill, M. D., San Antonio, and John G. McLaurin, M. D., Dallas.
Observations on Macular Degeneration—Charles R. Lees, M. D., Fort Worth.
Discussed by E. L. Goar, M. D., Houston and Van D. Rathgeber, M. D., Fort Worth.
Use of Penicillin by Local Injection—Major A. J. Cone, Ellington Field.
Discussed by C. C. Cody, M. D., Houston and Lyle M. Sellers, M. D., Dallas.
Antibiotics in Infections of the Eye and Upper Respiratory Tract—Chauncey D. Leake, M. D., Dean of Medical Department, University of Texas Medical School, Galveston.

DECEMBER 9

Spasm of the Larynx—C. P. Schenck, M. D., Fort Worth.
Discussed by L. J. Logue, M. D., Houston, and Tom Barr, M. D., Dallas.
Safety Measures in Cataract Surgery—W. E. Vandevere, M. D., El Paso.
Discussed by V. R. Hurt, M. D., Longview, and A. E. Jackson, M. D., Fort Worth.
Bronchography as a Diagnostic Aid in Chest Diseases—George S. Reynolds, M. D., Galveston, and Fred W. Shelton, M. D. (by invitation).
Discussed by C. P. Schenck, M. D., Fort Worth, and John H. Foster, M. D., Houston.
External Diseases of the Eye with Kodachrome Slides—Phil M. Lewis, M. D., Memphis, Tennessee.

A luncheon was held on the first day, with Dr. Arthur Brown, Fort Worth, presiding.

Guest speakers at the luncheon were Dr. Chauncey D. Leake, dean, University of Texas School of Medicine, Galveston, and Dr. Phil M. Lewis, Memphis, Tennessee.

A banquet was held in the evening of the first day at the Blackstone Hotel, for members and their ladies.

At a business session, at the conclusion of the scientific program, officers for the ensuing year were elected as follows: Dr. M. K. McCullough, Dallas, president; Dr. J. J. Richardson, Fort Worth, first vice-president; Dr. E. H. Vaughn, Tyler, second vice-president; Dr. E. D. Dumas, San Antonio, secretary; Dr. J. Charles Dickson, Houston, treasurer.

If war conditions will permit, the society will hold its next meeting in San Antonio.

American College of Surgeons Approves Texas Hospitals for Graduate Training in Surgery.—The American College of Surgeons announced recently that 231 hospitals in the United States and Canada had been approved for graduate training in general surgery and the surgical specialties. This number included the following Texas hospitals:

Baylor University Hospital, Dallas, 425 beds, approved for graduate training in general surgery and obstetrics and gynecology;

John Sealy Hospital, Galveston, 429 beds, approved for graduate training general surgery;

Hermann Hospital, Houston, 260 beds, approved for graduate training in general surgery, obstetrics and gynecology;

Southern Pacific Hospital, Houston, 120 beds, approved for graduate training in general surgery.

Scott and White Hospital, Temple, 200 beds, approved for graduate training in general surgery.

Military Personals

Lt. Col. Russel S. Wolfe, of Houston prior to his entry into the armed services, recently received his second award since being stationed in the Pacific theater three years ago, informs the Houston *Press*. Colonel Wolfe was awarded his second air medal for aerial flights over strong enemy installations, to observe the physical and mental hazards faced by the air crews. His first air medal was for participation in the rescue of a B-17 crew which landed in the water after a vicious air battle.

Dr. Dolph Curb, of Galveston before entering the armed services, was recently promoted to the rank of lieutenant colonel. Colonel Curb is a member of the 127th General Hospital unit somewhere in France. The unit was organized at the University of Texas School of Medicine, Galveston, and has been overseas since the fall of 1943, when it landed in England. It moved to Brittany shortly after D-Day.

Major Howard E. Lancaster, of Beeville prior to his entry in the armed services, is director of the government's rehabilitation camp at Lake Lure, N. C., informs the Beeville *Bee-Picayune*.

Major L. E. Williford, of Houston before entering the armed services, praises highly the fighting spirit of the American soldier on the battlefront, in a recent letter to his wife, states the Houston *Press.* Major Williford's letter says, "They are the swellest bunch of kids I ever saw. They are polite, even thank you for taking care of them, and it makes a lump in the throat, but it is the greatest lesson in humility I have ever had . . . and it gives one confidence in the future of our country."

Captain Edwin E. Middleton, of Abilene before entering the armed services, has been awarded a Bronze Star for his work as a surgeon in an air-borne division, advises the Abilene *Reporter-News.* Captain Middleton went overseas fifteen months ago and was stationed for several months in England. He was with an air armada dropping paratroopers in Holland. He was recently returned from Holland to France, for a rest period.

The following interns and residents of the Jefferson Davis Hospital, Houston, Texas, entered active service with the army of the United States on December 31, 1944: *Dr. Richard G. Hamill,* resident, and *Drs. H. S. Smith* and *Kenneth Straw,* interns.

The following physicians formerly connected with Parkland Hospital, Dallas, entered active military services January 17: *Lt. Herbert Alston,* M. C., A. U. S.; *Lt. Chas. M. Cole,* M. C., A. U. S.; and *Lt. (j.g.) Basil Hallum, Jr.,* M. C., U. S. N. R.

Personals

Dr W. E. Crumpler, Port Arthur, sustained three broken ribs, a fractured spine, body bruises and scalp lacerations in a fall from a second story window from his home, January 7, advises the Port Arthur *News.* Apparently Dr. Crumpler lost his balance when he leaned from his bed beside the window to close it against the rain.

Dr. J. E. Hogan, Big Spring, was recently nominated by members of the service clubs of that city, to be one of five young men of Texas to be presented with the Distinguished Service citation for outstanding services during the year. Dr. Hogan's accomplishments will be forwarded to the State Committee and will include among other things his outstanding activities in the Lions Club, Chamber of Commerce, his work as city health officer, his coöperation with the VD clinic of the City-County Health Unit; Boy Scout activities, and his active interest in all relief work, which he has generously supported with his services as well as with personal funds.—*Big Spring News.*

Dr. J. C. Watkins, health officer of Harlingen, has returned to his home following three months post graduate study in New York City, reports the Harlingen *Valley Star.*

Dr. H. L. Lobstein, Brownwood, was recently elected to a new term of office as health officer for Brownwood county by the commissioners court, advises the Brownwood *Bulletin.*

Dr. E. B. Richey, Waco, was recently appointed director of the Brownwood-Brown County Health Unit by Dr. George W. Cox, State Health Officer, which appointment is subject to approval by local contributing governmental bodies, states the Brownwood *Bulletin.* Dr. Richey has previously been employed by the U. S. Veterans' Administration at Waco.

Dr. Grady Deaton, Galena Park, assumed the position of director of the Harris county health unit January 1, on a part time basis, to serve until the commissioners court can find a full time director, informs the Houston *Post.*

Dr. D. K. Jamison, Denison, was recently appointed division surgeon in charge of the Katy Employes' Hospital to succeed Dr. W. A. Lee of Denison. Dr. Jamison has been assistant division surgeon for the past two years, states the Denison *Herald.* The *Herald* also reports that Dr. Doak Blassingame has been appointed assistant division surgeon for the Katy Employes' Hospital to serve with Dr. Jamison.

Mrs. Anna Beckman Hayes, wife of Dr. Herbert T. Hayes, Houston, died December 22, 1944, in a Houston hospital following a brief illness. Mrs. Hayes was a member of the Harris County Auxiliary and an active nurse in the recruitment commission of the Red Cross and supervisor of the Red Cross surgical dressing classes. She had spent more than 2,000 hours as a nurse in the information center of the Third Fighter Command.—*Houston Chronicle.*

Dr. J. R. Gandy, Houston, has been appointed chief surgeon of the Southern Pacific hospital, Houston, succeeding the late Dr. Judson L. Taylor, advises the Houston *Post.* Dr. Gandy had been assistant chief surgeon since 1937.

Marriage

Dr. Ern C. Mooney, San Antonio, was married December 27, 1944, to Miss Marie Sims of Mexia. Dr. Mooney is a graduate of Southwestern Medical School in Dallas.

Births

Born to Dr. and Mrs. John Stough, Houston, a boy, December 18, 1944.

Born to Dr. and Mrs. James Greenwood, Jr., Houston, a girl, December 19, 1944.

SOCIETY NEWS

Angelina County Society

December 11, 1944

Angelina County Medical Society met December 11 and elected the following officers for 1945: president, Byford Denman; vice-president, J. R. Dale; secretary, Robert Taylor.

Brown-Mills-Comanche-San Saba Counties Society

December, 1944

(Reported by H. L. Locker, Retiring Secretary)

Brown-Mills-Comanche-San Saba Counties Medical Society elected the following officers for 1945, at its December meeting: president, H. L. Lobstein; vice-president, E. J. Burns; secretary, H. B. Allen; delegate, J. M. Campbell; alternate delegate, Ben M. Shelton; censors, Joe R. McFarlane, chairman, Ben M. Shelton and C. W. Gray.

Childress-Collingsworth-Hall Counties Society

December 21, 1944

Partial Gastrectomy (Motion Picture)—E. W. Jones, Wellington.

Childress-Collingsworth-Hall Counties Medical Society met December 21, at Wellington. The scientific program as given above was carried out.

The following officers were elected for 1945: president, O. R. Goodall; vice-president for Hall County, J. A. Odom, Memphis; vice-president for Childress County, F. A. White, Childress; vice-president for Collingsworth County, E. W. Jones, Wellington; secretary, Charles B. Jones; delegate, E. W. Jones; alternate delegate, Perry R. Jeter; board of censors, Ernest Clark, Fred A. Carriker, E. W. Jones.

The procurement and assignment committee for the area covered by the society is E. W. Jones, chairman, J. H. Jernigan, O. R. Goodall.

Dallas County Society

December 14, 1944

(Reported by W. W. Fowler, Secretary)

Dallas County Medical Society held its regular annual meeting December 14, in the Medical Arts Building auditorium, with thirty-one members present. David W. Carter, Jr., president presided.

M. O. Rouse presented and moved the adoption of resolutions expressing the appreciation of Dallas County Medical Society for the progressive attitude of the officials of the city and county of Dallas as manifested by the splendid services provided by the Dallas City-County Hospital system and the city and county health departments, which services are greatly augmented from the standpoint of potential health values of Dallas by the presence of the Southwestern Medical Foundation Medical College and associated scientific enterprises in the city. The resolutions further called attention to the probability of a new Memorial Hospital to enlarge the facilities of the present Parkland Hospital, and to the recent State constitutional amendment adopted providing that the county tax fund may now be reallocated, which will make possible a better support of the county's part of public health activities. The resolutions provided for the endorsement by the Society of the authorization of the commissioners courts to reallocate the tax fund of Dallas County, on which the citizens of Dallas would vote January 20, and urged that the county and city officials to ask citizens of Dallas to vote early in 1945, bonds of sufficient amount to enable the city-county hospital board to carry out an extensive program furnishing the increased public health services desired and needed. The motion to adopt the resolutions presented by Dr. Rouse was seconded by Hall Shannon and carried.

Secretary Fowler presented a statement from the Better Business Bureau, covering membership of the Society for 1945. The Society voted to instruct the secretary to pay the statement.

The following new members were elected to membership on application: Robert Earl Beddoe, Ernest M. Bralley, Jr., Joseph D. Mitchell, Jr., George Washington Jewell, Jr., Marianna Hood, Charles P. Donoho, Tinsley R. Harrison and Leroy M. Cochran.

Officers for 1945 were elected as follows: president, G. E. Brereton; vice-president, L. S. Thompson; secretary-treasurer, W. W. Fowler (re-elected); delegates—place No. 5, Edward White (re-elected; place No. 6, Hall Shannon (re-elected); alternate delegates—place No. 5, Jack G. Kerr (re-elected); place No. 6, Julius McIver (re-elected); censor, M. K. McCullough.

President Carter announced that the annual dinner would be held January 4 in the dining room of the Dallas Athletic Club. Dr. Carter as retiring president made a short talk in which he expressed his appreciation to members for their coöperation during the year and made suggestions in the interest of work of the Society for the coming year. The Society voted its thanks and appreciation for the services of Dr. Carter during his administration, and also extended a vote of thanks to Secretary Dr. Fowler and Mrs. J. H. Forrester, telephone operator, for their faithful services during the year.

Denton County Society

January 4, 1945

Denton County Medical Society met January 4 in the offices of Jack Woodward, Denton. Officers for 1945 were elected as follows: president, Eva Strahan; vice-president, Jack Woodward; secretary, G. W. Hinkle; censor, M. L. Holland; delegate, Albert Wyss; alternate delegate, Louise Pierce.

El Paso County Society

El Paso County Medical Society elected the following officers for 1945 at the recent annual meeting for that purpose: president, Sam R. King; vice-president, M. P. Spearman; secretary, John F. Martin; librarian, S. P. Rogers; chairman of economic committee, Charles Rennick; chairman of the board of censors, H. H. Varner. Sam R. King, president-elect for the past year, was installed as president.

Resolutions from the student body of the University of Texas School of Medicine, Galveston, urging that the medical school be moved to some other Texas city where better clinical facilities are available, were considered. The society voted to adopt a hands-off policy with regard to the matter and tabled the resolutions.

The society also voted to pay state association dues of its members now serving in the armed forces. About one-third of the membership of the society is now in active service with either the Army or Navy.

Falls County Society

January 8, 1945

(Reported by J. W. Torbett, Sr., Secretary)

Address—H. F. Connally, Waco, President, State Medical Association.
Ascites, with Particular Reference to its Treatment by High Vitamin B Carbohydrate Diet—J. B. Barnett, Marlin.
Brucellosis—J. W. Torbett, Sr., Marlin.

Falls County Medical Society met January 8, in the library of the Torbett Clinic and Hospital with twelve members and one guest present. The program as given above was carried out.

Secretary Torbett read a letter from the National Physicians Committee, calling attention to the need of funds for the work of that organization. The letter also pointed out that a prepaid surgical and diagnostic plan was in the process of formulation, which would be submitted for general adoption by the medical profession of the country as possibly the best means of preventing the socialization of medicine by the government.

Secretary Torbett also read a communication from the Library Endowment Committee of the State Medical Association, requesting donations from county medical societies to the County Medical Society Library Endowment Fund.

H. F. Connallly, guest speaker, spoke on current problems of the medical profession and stressed the importance of the work being done by the National Physicians Committee in its effort to prevent the socialization of medicine. He urged that the Society support that committee financially to the greatest extent possible. He expressed the opinion that the socialization of medicine in some form is inevitable and it is important that the medical profession keep control and not permit it to be turned over to the government.

Gonzales County Society

(Reported by C. C. Cogburn, Secretary)

Officers for Gonzales County Medical Society for 1945 are: president, L. J. Stahl; vice-president, George Holmes; secretary, C. C. Cogburn; censor for three-year term, N. A. Elder; censor for two-year term, George Holmes; censor for one-year term, George Wilhite; delegate, George Wilhite; alternate delegate, L. J. Stahl.

Gray-Wheeler Counties Society

January 21, 1945

(Reported by H. L. Wilder, Secretary)

Clinical Cases: (a) Enlarged Spleen—R. M. Brown, Pampa; (b) Extreme Nervousness—H. E. Nicholson, Wheeler; (c) Thrombocytopenic Purpura—P. C. Christian, Pampa; (d) Allergy—W. Purviance, Pampa, Texas.
Socialized Medicine—E. A. Rowley, Amarillo.

Gray-Wheeler Counties Medical Society met January 21, at the Court House Cafe, Pampa, with eight members and one guest present. Following a steak dinner, members of the Society went to the City Hall for a scientific and business session. The program as given above was carried out.

R. M. Brown reported a case of enlarged spleen of several years duration, in a woman. The condition was probably caused by malaria.

H. E. Nicholson reported several cases of extreme nervousness seen in parents of boys serving on war fronts. Some of the cases were so extreme that they bordered on hysteria. He expressed the opinion that

there would be a great number of cases following the recent step-up in the tempo of the war on the Western Front, where a great many Texas boys are in action.

W. Purviance reported 2 cases of allergy, one from nail polish and another from a solution used in beauty shops for giving permanent waves.

E. A. Rowley, Amarillo, Councilor, Third District, talked on the subject of Socialized Medicine. He favored the term State Medicine in order that the laity would be impressed with what they would be going into if socialized medicine should come to pass. Dr. Rowley also discussed the 1945 legislative program of the State Medical Association, referring to the prenatal and premarital bills, and the Standard Health Unit Bill. He also stated that the State Medical Association would oppose any efforts by cults to secure recognition.

A round-table discussion was held following Dr. Rowley's talk, following which it was voted that the Society would support the entire legislative program.

Secretary H. L. Wilder presented his annual report, and an extended discussion was had regarding increase of State Medical Association dues; it was voted to increase society dues to $30.00 per year, which amount will include the State Association dues of $20.00.

The following officers will serve Gray-Wheeler Counties Medical Society for 1945: president, C. E. High; vice-president for Gray County, W. Purviance; vice-president for Wheeler County, Joel Ziegler; secretary, H. L. Wilder (re-elected); delegate, H. E. Nicholson; alternate delegate, R. M. Brown.

Guadalupe County Society

December 12, 1944

Guadalupe County Medical Society met December 12, in the office of the Chamber of Commerce, Seguin. Officers for 1945 were elected as follows: president, A. I. Heinen; secretary, Ilse Mannheimer; delegate, N. A. Poth.

Hays-Blanco Counties Society

December 14, 1944

(Reported by J. R. de Steiguer, Secretary)

Hays-Blanco Counties Medical Society met December 14, 1944, at Memorial Hospital, San Marcos, for its annual meeting for the election of officers. After a turkey dinner, the following officers were elected to serve during 1945: president, John M. Flannery, Blanco; vice-president, Rugel F. Sowell; secretary, J. R. de Steiguer, San Marcos; delegate, J. R. de Steiguer; board of censors, M. C. Williams, York Lancaster, J. R. de Steiguer, all of San Marcos.

The following constitute the legislative committee: L. L. Edwards, chairman; J. M. van Ness, R. F. Sowell, all of San Marcos.

Hidalgo-Starr Counties Society

(Reported by Ottis Walker, Secretary)

Hidalgo-Starr Counties Medical Society held its annual meeting for the election of officers at the Edinburg Hotel, Edinburg, with fourteen members and one visitor present. Officers for 1945 were elected as follows: president, A. S. Osborn; vice-president, Joe W. May; secretary, Ottis Walker; censor, K. J. Scott; delegate, H. E. Whigham; alternate delegate, M. R. Lawler.

A round-table discussion was had regarding methods for increasing the interest and value of the meetings for the ensuing year, and also for making the society of more value to the general public.

Hill County Society

Hill County Medical Society elected the following officers for 1945 at the annual meeting held for that purpose: president, Ben C. Smith; vice-president, J. Frank McDonald; secretary, J. E. Boyd (re-elected).

Hopkins-Franklin Counties Society

December 19, 1944

(Reported by W. Ray Hanna, Secretary)

Hopkins-Franklin Counties Medical Society met December 19, 1944, and elected the following officers for 1945: president, Earl Sterling; vice-president, Byrd Longino; secretary, W. Ray Hanna; delegate, J. M. Fleming; alternate delegate, H. E. Chandler.

J. M. Fleming and Z. C. Fuquay are members of the committee on public relations and legislation, and Frank Long and H. E. Chandler are members of the procurement and assignment committee.

Jefferson County Society

December 16, 1944

(Reported by L. R. Byrd, Jr., Secretary)

Jefferson County Medical Society met December 16, for its annual banquet and election of officers at the Goodhue Hotel, with I. T. Young, president, presiding.

A discussion was had regarding the amount of annual dues. B. J. Fetts moved that the dues be raised to $50.00 per year, which motion was seconded by Grady Bevil. S. B. Lyons moved to amend the motion of B. J Fetts to the effect that the dues be raised only to take care of the increase of State Association dues of $11.00, which would make the annual society dues $36.00. Following further discussion, the motion as amended was carried.

W. A. Smith moved that $5.00 be donated by the society to the Texas Tuberculosis Association chapters at Beaumont and Port Arthur, respectively. The motion was seconded by P. T. Petit and carried.

On motion by E. C. McRee, the society voted to give $50.00 to Mr. O. D. Adamson, secretary to Dr. Byrd, in appreciation of services rendered the society.

It was voted that a committee be appointed to investigate the situation of an indigent physician. Stuart Wier and Grady Bevil were appointed as a committee to make the study and to report later to the society the results of the investigation.

L. C. Powell moved that annual dues of $1.00 of the State Medical Association for members in military service, be paid by the society for each of its military members. The motion carried.

Secretary L. R. Byrd gave the financial report of the society for 1944, which was approved.

The following officers were elected for 1945: president, Stuart Wier; vice-president, B. J. Fetts; secretary, L. R. Byrd (re-elected); delegates, L. C. Heare and T. A. Tumbleson; alternate delegates, L. C. Powell and R. R. Orrill; censor, H. E. Alexander.

January 8, 1945

Split Skin Grafting (Motion Pictures)—E. L. Poth, Galveston.

Jefferson County Medical Society met January 8 at the Hotel Dieu, Beaumont, with S. T. Wier, president, presiding. The scientific program as given above was carried out. Dr. Poth illustrated a very interesting discussion of split skin grafting with motion pictures.

During a business session, Mr. G. D. Switzer, Director of the Veterans Council of Beaumont, presented a survey of medical problems of that organization and requested suggestions from the society as to the best method of handling these problems. Following considerable discussion, C. M. White moved that the society endorse the program of the organization, as presented by Mr. Switzer, and that the committee previously appointed, consisting of Taylor Walker, W. A. Smith and J. D. Martin, be directed to continue to function in an advisory capacity with the Veterans Council on medical problems. The motion carried.

H. E. Gardner stated that Congressman J. M. Combs had expressed a desire to meet with the society and discuss the problem of socialization of

medicine. L. C. Powell moved that the legislative committee contact J. M. Combs and arrange for a meeting of all county medical societies in the congressional district of Judge Combs, at a time convenient for him to address such group. The motion carried.

C. M. White suggested that each member of the society write Congressman Combs and express his opinion regarding medical legislation in the Congress and alternate plans offered by American medicine as a substitute for state medicine.

Irma McFadden discussed the problem of canned milk supply in Port Arthur, stating that, with the increase of population in that city caused by the war, coupled with the decreased supply of fresh milk, the canned milk supply was so limited that it had become extremely difficult to manage feeding problems in infants. Dr. McFadden suggested that an investigation be made of the canned milk supply in Beaumont and an attempt be made to solve the problem on a county-wide basis. No definite action was taken with regard to the suggestion, at this meeting.

L. C. Powell gave a brief report on public relations activities in Beaumont, mentioning especially the work of Dr. W. D. Brown, who also gave a brief resume of his work.

President Wier announced the appointment of the following committees for 1945: *Economic Section*, Tom W. Martin, chairman, W. D. Brown and A. R. Autrey; *Tuberculosis*, Michael Cunningham, chairman, Fred Y. Kuhlman, C. M. White and D. A. Mann; *Social Hygiene*, W. A. Smith, chairman, H. D. Harlan, B. W. Woods and Rogers Pierson.

Liberty-Chambers Counties Society

December 20, 1944

Vitamins (Motion Picture)—Shown through the courtesy of E. R. Squibb and Company.

The Liberty-Chambers Counties Medical Society held its annual banquet December 20, in the City Hall at Liberty, with an attendance of twenty-three members and guests.

An interesting motion picture on vitamins was exhibited by a representative of E. R. Squibb and Company.

Officers for 1945 were elected, as follows: president, E. W. Sykes, Anahuac; vice-president, Jack Bevil, Hull; secretary, E. R. Ritcher, Dayton.

Nacogdoches County Society

December 13, 1944

Members of the Nacogdoches County Medical Society were guests of Dr. and Mrs. C. F. Neuvall, Nacogdoches, December 13.

At a business session following the dinner, officers for 1945 were elected as follows: president, Langston Nelson; vice-president, Clarence Smith; secretary, Henry Tucker; censors, C. F. Neuville and C. M. Payne.

Orange County Society

January 5, 1945

(Reported by E. W. Hawkins, Secretary)

Orange County Medical Society met January 5 and elected the following officers for 1945: president, T. O. Woolley; vice-president, H. H. Key; secretary, E. W. Hawkins; delegate, M. C. Covington; alternate delegate, E. W. Hawkins.

Tarrant County Society

December 5, 1944

(Reported by X. R. Hyde, Secretary)

Tarrant Counuty Medical Society met December 5, in the Medical Arts Auditorium, Fort Worth, with thirty-four members present.

John A. Hammack of Kennedale was elected to membership.

Tribute was paid to Lt. Edwin Covert Terrell, son of Dr. and Mrs. T. C. Terrell, who was recently killed in action over Germany.

Reports were received from the following officers and committees: president; secretary; editor-manager of the Tarrant County Medical Society *Bulletin*, Craig Munter; *program*, C. C. Garrett; *legislative*, Jack Furman; *legal enforcement*, J. H. McLean; *membership*, Giles W. Day; *house and building*, T. C. Terrell; *cancer education*, Frank S. Schoonover; *attendance*, A. Antweil; *sick and relief*, C. P. Schenck; *entertainment*, Tom B. Bond; *public relations*, Rex Howard; *medical economics*, Mal Rumph; *public health advisory*, Harold M. Williams; *venereal disease*, Craig Munter; *medical programs extension*, L. H. Reeves; *procurement and assignment*, Young J. Mulkey; *pneumonia control*, H. O. Deaton; *civilian defense*, Harold J. Shelley; *industrial relations*, R. W. McKean; *gasoline rationing*, Rex Howard; *food points advisory*, J. F. McVeigh.

On motion of W. C. Foster, seconded by C. O. Terrell, the reports of the officers and committees were accepted as read.

The following officers for 1945 were elected by acclamation: president-elect, E. L. Howard; vice-president, Craig Munter; secretary, X. R. Hyde (re-elected); member, board of censors, H. O. Deaton; delegate, L. O. Godley (re-elected); alternate delegate, R. J. White (re-elected); member, board of trustees, H. B. Kingsbury.

Resolutions were adopted expressing regret regarding the disturbing and unfortunate publicity of the affairs of the University of Texas, and extending greetings and respect to the Governor of Texas, urging that he re-appoint Dr. C. O. Terrell of Fort Worth as regent of the University, with the fullest commendation of Dr. Terrell for that office.

Tom Green Eight County Society

January 1, 1945

(Reported by Tom L. Husbands, Secretary)

Symposium on Rheumatic Fever:

(a) The Epidemiology and Etiology—F. T. McIntire, San Angelo.
(b) Rheumatic Fever in Children—R. M. Finks, San Angelo.
(c) Diagnosis of Rheumatic Fever—Victor E. Schulze, San Angelo.
(d) Prevention of Recurrences and Treatment—W. Grady Mitchell, San Angelo.

Tom Green Eight County Medical Society met January 1, in the Indian Room of the Cactus Hotel, San Angelo, with thirteen members present. Wm. J. Swann, president, presided, and the scientific program as indicated above was carried out, with the exception that V. E. Schulze substituted for F. T. McIntire. The symposium was discussed by H. E. Hickman.

During a business session, recent correspondence received by the secretary was read and discussed.

V. E. Schulze moved that the secretary be instructed to write to the State Health Department inviting the mobile x-ray unit of the department to carry out a tuberculosis survey in Tom Green County. The motion was seconded by William Hixson, and carried. The work of the mobile x-ray unit was discussed by Jerome Smith, J. B. McKnight, James Rape and V. E. Schulze.

Discussion was had regarding consideration of three members of the society for honorary status. President Swann requested V. E. Shulze to prepare resolutions with regard to the matter, to be presented at the next meeting.

President Swann announced that members of the various committees of the society would remain the same for the current year as for the past year.

Wichita County Society

January 9, 1945

Wichita County Medical Society met January 9, and adopted resolutions presented by a special com-

mittee composed of A. F. Leach, M. H. Glover and O. T. Kimbrough, pledging aid to the Wichita Falls Chapter of the American Red Cross in securing graduate nurses for the nursing corps of the Army and Navy. The resolutions were unanimously adopted.

Members will encourage all qualified nurses to enter the armed services, and will pledge themselves to call graduate nurses only in cases of emergency.

Patients will be urged to dispense with the services of special nurses when possible, and physicians pledged themselves to insist upon being judges of the nursing services required by their respective patients.

Twelfth District Society

January 9, 1945

(Reported by Robert J. Hanks, Secretary)

The Twelfth District Medical Society met January 9, at McCloskey General Hospital, Temple, as guests of Brigadier General J. A. Bethea and Staff. The meeting was attended by two hundred seventy-one physicians and their wives. The meeting was one of the largest and best the society has had during its existence. Many physicians from out of the district were present as guests.

The morning session was devoted to clinic and ward rounds in various sections of the hospital, beginning at 9:30 a. m. Members were permitted to choose for clinics the field of medicine in which they were most greatly interested. Cases were presented by the staff and round-table discussions were encouraged.

The following clinics were presented:

MEDICAL DIVISION

Medical Clinic: Presentation of unusual medical cases by members of the medical staff.
Neuropsychiatric Clinic: Presentation of neurological and psychiatric cases.
Dermatology and Venereology—Lieutenant Colonel Decker.
Cardiovascular Disease—Major Levan.
General Medicine and Gastroscopy—Major Grossman.
Chest Diseases—Major DeBold.
Neurology—Major Riesenman.
Psychiatry—Lieutenant Colonel Randall.

GENERAL SURGICAL CLINICS

Eye, Ear, Nose and Throat Clinic—Lieutenant-Colonel Smith and Major Dowling.
Plastic Surgery for Hydronephrosis—Major Wayman.
Interesting Plastic Cases—Major Hyroop and Captain McCoy.
Case Presentation of Tumor of Fallopian Tube—Captain Connally.
Rh Factor—Major Hoerner.
General Surgical Cases—Lieutenant-Colonel Wollgast and Lieutenant Steptoe.

NEUROSURGICAL CLINICS

Herniation of Intervertebral Discs with Case Presentations—Captain Owens.
Peripheral Nerve Lesions with Case Presentations—Lieutenant Wells.
Tantalum in Repair of Skull Defects with Case Presentations—Major Haverfield and Lieutenant Gartland.

ORTHOPEDIC CLINICS

Demonstration of Amputation Problems and Treatment—Major Morris.
X-ray Demonstration of Acute Bone and Joint Fracture Conditions—Major Renshaw.
Demonstration of Neoplastic Bone Diseases: Diagnosis and Treatment—Captain Trott.
Demonstration of Certain Reconstructive Problems with Outline of Treatment—Captain Altman.
Open Discussion with Demonstration of Unusual Casualty Compound Fractures—Major Compere.

At noon a turkey dinner with all the trimmings was served in the mess hall of the hospital. Following the dinner, members and their wives adjourned to the Red Cross Auditorium where a dinner session was held.

Brigadier General James A. Bathea, Commanding General, McCloskey Hospital, welcomed the guests. Dr. W. B. Russ, of San Antonio, gave an interesting discussion of socialized medicine, well flavored with the wit and sage philosophy for which Dr. Russ is famous.

Following the noon session the Woman's Auxiliary retired, and during the business session the society elected the following officers for the ensuing year: president, R. H. Harlan, Temple; secretary, Robert J. Hanks, Waco.

On a motion of S. C. Richardson, it was voted unanimously that meetings for the duration would be rotated between Temple, Marlin and Waco.

A general discussion was had in regard to the financial expense of meetings. Secretary Hanks offered two suggestions: (1) that the expense of meetings be prorated among the societies in the district, and (2) that each member attending pay an amount for the dinner which would include the other expenses connected with the meeting.

Charles Phillips moved that the president appoint a committee to determine the best procedure to follow, which motion was seconded by S. C. Richardson and carried.

A scientific session was held at the Post theater in the afternoon. Colonel S. G. Stewart read a paper entitled, "Unusual Lung Conditions," pointing out that conditions which heretofore had been considered unusual are now thought to be relatively common because of the large number of men examined and treated in the armed services. Colonel Stewart presented three cases of pericardial coelomic cysts of the thoracic cavity. The cysts were found in routine x-ray examinations and at the time were not causing symptoms, but were removed because of the fear that they might become malignant. Colonel Stewart stated that surgery is not necessary in such cases unless pressure symptoms are present.

Lieutenant-Colonel H. C. Blair read a paper entitled, "Orthopedic War Wounds and their Treatment." Colonel Blair stated that penicillin and sulfa drugs had contributed greatly to orthopedic surgery, and had made it possible to carry out orthopedic procedures sooner than before they were available. Soldiers are supplied with sulfa tablets with directions to take them immediately when they receive an injury. As a result, as soon as they reach the front line hospital, which is usually within two hours, the debridement is done, a cast is applied, and there is little infection and practically no gangrene when they reach the general hospital. Plasma and whole blood have played an important part in reducing mortality and in improving physical results. If a wound does not heal, careful search is made for the cause which may be a piece of cloth or a bone sequestrum, which, if present, must be removed. The treatment of war wounds begins at the battle front and continues throughout the evacuation of the wounded to the various hospital areas, and until the soldier is fully recovered.

Colonel H. L. Jaworski read a paper on "Abdominal War Wounds," in which was presented a rather complete didactic resume of the entire field of surgery in the treatment of abdominal wounds caused by war.

Lieutenant-Colonel G. F. Wollgast read a paper on "Penicillin Therapy in War Wounds." Colonel Wollgast stated that pencillin had been used in about 1,100 cases at McCloskey General Hospital, of which number 200 were cases of gonorrhea. Pencillin is used extensively in orthopedic and plastic surgery, prior to and following the operation, to eliminate infection. Recently penicillin has been placed in a peanut-oil vehicle so that a large single dose may be used instead of repeated smaller ones, because of the slow absorption of the drug. All new cases of empyema are treated by the closed method with the instillation of penicillin. Surgery should always be done in cases of old empyema with a thickened pleura. Several cases of peritonitis have been treated with penicillin instillations, but the results have

been poor. Colonel Wollgast presented a series of cases in which penicillin had been used.

The society will hold its next meeting July 10, in Marlin.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Bowie-Miller Counties Auxiliary held its joint annual Christmas banquet with the Bowie and Miller County Medical Societies, at the Hotel McCartney, Texarkana. Dr. T. L. Wilbank gave the invocation.

Mrs. J. T. Robison, president of the auxiliary, introduced the guests.

A musical program was given by Mr. and Mrs. W. G. Stroup.

Dr. Wilbank served as master of ceremonies for a quiz program modeled on that of Dr. I. Q.

Dr. H. E. Murry, president of the Miller County Medical Society, introduced the guest speaker, Dr. Guy Witt of Dallas, who talked on neuropsychiatry.

Harris County Auxiliary entertained their husbands at an open house at the River Oaks Country Club, Houston, December 27. The affair was attended by 130 guests, and was greatly enjoyed by all who attended.—Mrs. James Greenwood, Jr.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary met December 1, 1944, at the home of Mrs. C. L. McClellan, Kerrville. Mesdames H. H. Gallatin, J. E. McDonald, W. L. Secor, and A. P. Allison acted as assisting hostesses.

The usual business meeting was dispensed with, and the afternoon was spent folding tuberculosis seals for mailing.

At the conclusion of the work, tea was served with Mrs. S. E. Thompson and Mrs. W. E. Gregg presiding.

Returns from the sale of tuberculosis seals to date have amounted to $1,400.—Mrs. W. A. Cassidy.

Tarrant County Auxiliary honored the wives of physicians in service, stationed in the Fort Worth area, at the regular meeting in December.

Mrs. W. P. Higgins gave the address of welcome.

Mrs. J. A. Hallmark, chairman for the day, introduced Mrs. Roy F. Will, violinist, who gave musical numbers, and Mrs. J. A. D. Todd, who gave two readings in negro dialect.

Twelfth (Central Texas) District Auxiliary met January 9, at McCloskey General Hospital, Temple. Members were registered from 9:00 to 10:00 a. m. in the administration building, following which they were conducted on a tour of the hospital.

At noon, the Auxiliary was entertained at a joint luncheon with members of the Twelfth District Medical Society, in the hospital mess hall. Following the luncheon, the Auxiliary held a separate meeting in the McCloskey Officers Club.

BOOK NOTES

[1]**The Pathogenesis of Tuberculosis.** By Arnold R. Rich, M. D. Associate Professor of Pathology, The Johns Hopkins University School of Medicine, Baltimore, Maryland. Cloth, 1,008 pages. Price, $10.50. Springfield, Illinois, and Baltimore, Maryland, Charles C. Thomas, 1944.

Students of tuberculosis have long been confused by the conflicting literature relating to the fundamental principles that underlie infection which they must study to understand the disease. Although the factors of host resistance, virulence of organism, size of infecting dose, and the presence or absence of hypersensitivity are admittedly all vitally concerned in the mechanism that controls the progression or arrest of the process, there has been little agreement as to the specific part played by each. With hundreds of articles coming into print every year from each of the fields of pathology, bacteriology, immunology, roentgenology, epidemiology, and genetics, the bewildered clinician can well appreciate the efforts of this author to "Define the limits of our present knowledge regarding the pathogenesis of tuberculosis."

The method employed is to make each of the various factors the subject matter of separate chapters or articles where they can be torn down to their constituent and related parts and studied. Prevailing theories are reviewed and their supporting evidence outlined. The author then appraises the work of each investigator or supporter of a theory and states the conclusion that he thinks he is justified in drawing from it. Where insufficient evidence is available for a final conclusion he frankly states the fact and suggests the type of subject matter that should be embodied in the research needed to supply the deficiency. The various discussions are closely interlocked with each other in such a way that no subject is entirely complete until all the chapters have been read. References are freely given to the appropriate article that completes the discussion, which cannot run too far afield in its initial consideration without the danger of losing sight of the theme assigned to it.

The first page of each chapter contains a detailed topical outline that is followed faithfully in paragraphs leaded in black type for convenience of locating specific discussions the reader may desire. Numerals in parenthesis placed in the body of the text where literature is quoted or cited direct the reader to a bibliography of 1,417 titles. An alphabetical author index is another convenience. A table of contents that reproduces the chapter outlines in serial order makes it possible for the student to study in detail the subject matter presented and to locate specific points in a discussion without the necessity of browsing or searching to find them.

In spite of the war shortage, the book is well and substantially bound, the printing is clear and easily read, and there are few imperfections.

There are a few typographical errors and some sentences are entirely too long and should be shortened and given clearer meaning. "Spirochete" is employed instead of the orthodox term "treponeme" of syphilis. Only two x-ray reproductions are used and they are of poor quality that could easily be improved. Since many clinicians will wish to use the book who normally follow the pathologic changes in x-ray films, it would seem wise to include more film reproductions to accompany autopsy specimens described and pictured in the text, and this suggestion is offered for the consideration of the author in revisions. The discussion of "epituberculosis" on pages 849-850 would be improved if x-ray evidence of the "atelectasis" that is offered as an explanation of the changes were submitted.

Many interesting questions are discussed in which new or changing concepts are in process of development as a result of researches in recent years. Examples are: Does hypersensitivity protect against the spread of bacilli from a lesion? Since it can be shown that the tuberculin test grows more and more

[1]Reviewed by J. Edward Johnson, M. D., Austin, Texas.

valuable in adults as the incidence of tuberculosis falls, why should it not be utilized to a greater extent in clinical practice? Does a primary infection in childhood protect against a subsequent adult or re-infection tuberculosis? As the incidence of the disease falls before nationwide control programs, is the white race apt to lose its resistance to the disease and be decimated by an increasingly virulent strain that will develop as its victims become more susceptible?

The appeal for simplification of terms in allergy and his suggestion that the term "resistance" (native or acquired) be used instead of the less appropriate word "immunity" will doubtless meet with general approval. Also he is to be commended for his insistence on leaving unanswered all questions on unsolved problems until sufficient investigation can provide a basis for opinions. If this policy were adopted generally it would save much cluttering of the literature by fantastic theories unsupported by valid evidence.

But the author's greatest contribution appears to be in the accomplishment of the objective he established at the outset: "To define the limits of our present knowledge." In several passages he rises to a scientific and literary excellence rarely seen in medical texts. Examples are on page 502 where he explodes the idea that there is a necessary connection between hypersensitivity and acquired resistance and on page 671 in the article on the relationship between the number of bacilli present and the type of lesion produced by them. In the opinion of the reviewer this book is an outstanding and timely contribution to our literature.

DEATHS

Dr. Isaac M. Howard of Ranger, Texas, died November 12, 1944, of coronary thrombosis.

Dr. Howard was born April 1, 1871, in Holly Springs, Arkansas. His early education was received in the public schools of that state. His medical education was obtained in the old Gate City Medical College, Texarkana, Texas, from which he was graduated in 1905. He later attended Tulane University School of Medicine, New Orleans, graduating from that institution in 1920. During his years of practice he had taken postgraduate work in Loyola University.

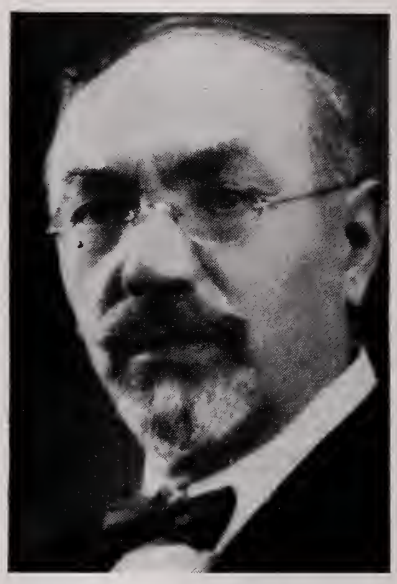
Dr. Howard came to Texas in 1885, first locating in Limestone County. Several years later he moved to Clay County where he practiced for three years on both sides of the Texas-Indian Territory borders. In 1895, he located in Brown County where he lived and practiced for a few years, later removing to Callahan County where he was in practice for several years. He located in Crosscut in January, 1915, removing to Burkett in January, 1917. In November, 1919, he located in Cross Plains, where he was in active practice for twenty-three years. For a time he was retired, but after the shortage of physicians caused by the present World War, he decided to re-enter practice and moved to Ranger, being associated with the West Texas Clinic group in that city.

Dr. Howard was a member for many years of the State Medical Association and American Medical Association through county medical societies of his various places of residence and was a member in good standing at the time of his death. He was the typical general practitioner of the old school and held in the highest regard by those who knew him.

Dr. Howard was married to Miss Hester Jane Ervin in Palo Pinto County in 1904. His wife and son preceded him in death in June, 1939. He will be long remembered by those who knew him.

Dr. Sigmund Schulem Burg, a practitioner for many years at San Antonio, died December 25, 1944, in a Houston Hospital, of toxic hepatitis and arteriosclerosis.

Dr. Burg was born April 15, 1860, in Brody, Austria, the son of Samuel L. and Esther F. Burg. His academic education was received in the public schools and Governmental Gymnasium in Austria. His medical education was received in the University of Vienna, Austria, from which he was graduated in March, 1886. After his graduation he served an internship in the Imperial and Royal Hospital of Vienna. Following three years hospital work, he came to the United States in 1889, and located in San Antonio, where he was in practice until 1925. He then went to Jerusalem, where he operated a free clinic for the poor of all denominations until 1929, at which time he returned to San Antonio, which was his home for the remainder of his active professional life. He had made his home in Houston during the past year. In 1935 he retired from practice.



DR. SIGMUND BURG

Dr. Burg had been a member continuously during his professional life in San Antonio of the Bexar County Medical Society, State Medical Association and American Medical Association. He was elected an honorary member of the State Medical Association in 1926, which membership status continued until his death. Early in his medical career, Dr. Burg served as city health officer of San Antonio and was chief physician of the old City Hospital of San Antonio from 1901 to 1911. He had an important part in making vaccination against smallpox compulsory in the public schools of San Antonio. He was a charter member of the Bexar County Medical Society and the Bexar County Medical Library Association. Before coming to this country he served one year obligatory service as a medical officer in the Austrian Army.

Dr. Burg was a founder member of the Texas State Zionists Association, which he had served many times as president. He was a charter member of Siemering Lodge, Sons of Hermann, and of Synagogue Agudas Achim, San Antonio. He was a member of B'nai B'rith Lodge.

Dr. Burg was married May 3, 1889, to Miss Antonia Scharfmesser of Vienna, Austria. His wife preceded him in death November 3, 1915. He is survived by his son, Dr. Edward M. Burg, San Antonio; and two daughters, Miss Elsa F. Burg, San Antonio, and Mrs. Minna Alexander, San Francisco, California.

Dr. John William Henry Belote of Hiram, Texas, died December 14, 1944, in a Fort Worth hospital, of coronary occlusion.

Dr. Belote was born April 19, 1867, in McMinnville, Tennessee, the son of W. S. and Fannie Belote. His academic education was received in Doyle Col-

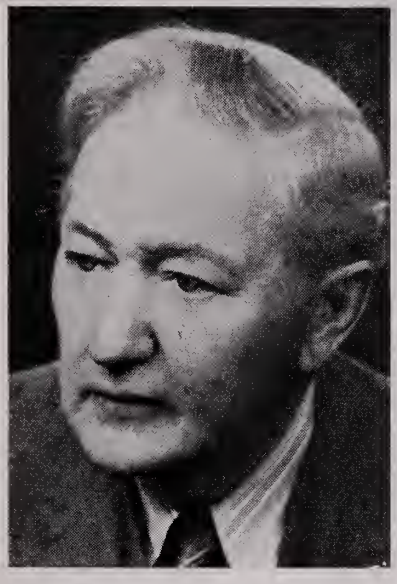
lege, Doyle, Tennessee. He came to Texas many years ago and lived in Dallas. He first studied dentistry, graduating with a D. D. S. degree, with honors. He then studied medicine in the University of Tennessee, from which he was graduated in 1901. After his graduation, he located in the Hiram community, Kaufman County, where he had lived and practiced for thirty-three years, in addition to carrying on extensive farming and cattle raising.

Dr. Belote was for many years a member continuously in good standing of the Kaufman County Medical Society, State Medical Association and American Medical Association. He served the Kaufman County Medical Society as president in 1934. He was held in the highest regard by his medical associates and by the clientele he served as a typical type of the beloved family practitioner. He also was a man of sound business judgment and had acquired considerable property. He will be genuinely missed by the community he had well and faithfully served. He was an active member of the Methodist Church.

Dr. Belote was married September 6, 1895, to Miss Ida Holden. Two children born to this union preceded him in death. He is survived by his wife. He is also survived by two sisters, Mrs. Alderson, Bowling Green, Kentucky, and Mrs. Brown of Pittsburg, Kansas.

Dr. Martin Van Buren Creagan of Fort Worth, Texas, died December 14, 1944, in a Fort Worth hospital, following a brief illness.

Dr. Creagan was born in 1873 in Tarbert, County Kerry, Ireland. He came to America with his parents in 1876, locating in Bellflower, Illinois, where he received his early education in the public schools. He then attended the Northwestern University School of Pharmacy, Chicago, Illinois, from which he was graduated in 1892. He practiced the profession of pharmacy in Chicago until ill health caused him to move to Texas in 1898. He then attended Baylor University College of Medicine, Dallas, from which he was graduated with an M. D. degree in 1903. He served as professor of chemistry in Baylor University for three years. Following his graduation he practiced in Dallas for one year, prior to his location in Fort Worth, which was his home for the remainder of his professional life.



DR. M. V. CREAGAN

Dr. Creagan was a member for many years of the Tarrant County Medical Society, State Medical Association and American Medical Association. For many years he was a member of the staff of St. Joseph's Hospital, Fort Worth. He was a member of St. Mary's Catholic Church and a member of the third and fourth degree Knights of Columbus. He was active for many years in Catholic charities.

Dr. Creagan was married September 9, 1920, to Miss Elizabeth Moriarty who died May 7, 1928. Dr. Creagan is survived by an adopted son and daughter, Martin, Jr., and Margaret, both of Fort Worth, and five sisters, Mrs. Dan Toomey, Chicago, Illinois; Mrs. John Luby, Cairo, Illinois; Mrs. John Doheny, Galveston; Mrs. T. J. Rogers and Mrs. T. J. Murphy, Fort Worth.

Dr. Robert Courts Brookes of Waelder, Texas, died October 16, 1944, of pyloric carcinoma.

Dr. Brookes was born December 16, 1864, at Pontotocola, Mississippi, the son of Dr. Robert H. and Mary Prude Brookes. His academic education was received in the schools of Buena Vista, Mississippi. His medical education was obtained in Tulane University School of Medicine, New Orleans, from which he was graduated in 1894. He had lived and practiced three years in Brandon and five years in Forest, Mississippi, before his location in Waelder, where he had been in practice for the past forty-two years.

DR. R. C. BROOKES

Dr. Brookes had been a member continuously in good standing during his residence in Waelder, of the Gonzales County Medical Society, State Medical Association and American Medical Association. Prior to his location in Texas, he was a member of the State Medical Society of Mississippi. He was a past president of the Gonzales County Medical Society. He was a member of the Baptist Church and a Mason. He was a member of the Waelder Chamber of Commerce. Dr. Brookes was greatly beloved by the community which he had long and capably served.

Dr. Brookes was married June 26, 1901, to Miss Mary Christian of Forest, Mississippi. He is survived by his wife and two sisters, Mrs. Annie Farrell, Jackson, Mississippi, and Miss Virginia C. Brookes, Waelder, Texas.

Dr. Treau Parvin Lynch died August 21, 1944, at his home in Como, Texas, of uremia.

Dr. Lynch was born June 27, 1878, in Como, Texas, the son of Dr. and Mrs. T. J. Lynch. His father was a pioneer East Texas physician who located at Sulphur Springs after service in the Confederate Army. Dr. Lynch received his medical education in the old Fort Worth Medical College, from which he was graduated in 1900. After graduation he practiced at Como and Sulphur Springs until 1904, following which he located in Iowa Park, which was his home for the remainder of his professional life with the exception of the years from 1925 to 1933 when he was located in Wichita Falls and, also, with the exception of a period of time he served as a first lieutenant in the medical corps of the U. S. Army during World War I. He retired from practice because of ill health October 28, 1940, and returned to his old

home in Como in February, 1942, where he lived until his death.

Dr. Lynch was a member for many years of the State Medical Association and American Medical Association through the Wichita County Medical Society while residing in Iowa Park and Wichita Falls, and through the Hopkins County Medical Society during his residence in Como.

Dr. Lynch was married in 1902 to Miss Omi Harper of Sulphur Springs, who survives him. He is also survived by a brother, C. B. Lynch, Como. He was buried in Sulphur Springs.

Dr. Scott Carter Applewhite of San Antonio, Texas, died at his home November 18, 1944, following a brief illness.

Dr. Applewhite was born January 12, 1876, in Brownstown, Indiana, the son of James Felix and Cynthia (Carter) Applewhite. His academic education was received in the public schools of Brownstown and in the U. S. Naval Academy, Annapolis, which he attended for three years. His medical education was received in the Jefferson Medical College, Philadelphia, Pennsylvania, from which he was graduated in 1901. He then served an internship in Western Pennsylvania Hospital, Pittsburgh. He began the private practice of medicine in Pittsburgh, where he remained for several years. During his residence in Pittsburgh he served as an Instructor in Hygiene in the University of Pittsburgh. He returned to Philadelphia for postgraduate work in ophthalmology, following which he located in 1911 in San Antonio. During World War I, Dr. Applewhite served as commandant of Robt. B. Green Hospital examining unit of the Air Force; he also served at Kelly Field Hospital and the Base Hospital, Fort Sam Houston.

DR. S. C. APPLEWHITE

Dr. Applewhite was a member continuously in good standing during his residence in Texas of the Bexar County Medical Society, State Medical Association, Southern Medical Association, and the American Medical Association. He was a past president of the San Antonio Eye, Ear, Nose and Throat Society. He was a member of the staff of the Nix, Medical and Surgical, Santa Rosa and Medical Arts hospitals of San Antonio. He was a member of the Episcopal Church, which institution he had served as a vestryman. He was a member of the Masonic Blue Lodge, Pittsburgh, Pennsylvania, and of the Scottish Rite organization in San Antonio. Dr. Applewhite was highly esteemed by his medical associates as an accomplished ophthalomologist, and highly regarded by all who knew him.

He is survived by his wife, the former Miss Helen Moore to whom he was married in Madison, Indiana, September 15, 1907. He is also survived by one daughter, Mrs. Robert D. Terhune, Hamden, Connecticut; and three grandchildren, Robert D. Jr., Frank H. and Ellen Carter Terhune.

Dr. William Hilary Guy of Dublin, Texas, died January 1, 1945, in a Fort Worth hospital where he had been a patient since Nov. 15, 1944, on which date he suffered an attack of coronary occlusion.

Dr. Guy was born June 5, 1879, in Jefferson, Missouri. He came to Texas with his family at an early age and was reared in Eastland County where he attended the public schools. He then taught school in Eastland County. His medical education was received in the medical department of the University of Texas, Galveston, from which he was graduated in 1914. After graduation he served an internship in the City-County Hospital, St. Louis, Missouri, following which he served as a resident in the Philadelphia General Hospital, Philadelphia, Pennsylvania, from 1916 to 1918. He then returned to Texas and during World War I served on the staff of the State Health Department. Following the war he returned to Carbon, Texas, where he was in general practice from 1919 to 1926, at which time he located in Gorman and was a member of the staff of the Blackwell Sanitarium. In 1928 he removed to Dublin, which was his home for the remainder of his professional life.

DR. W. H. GUY

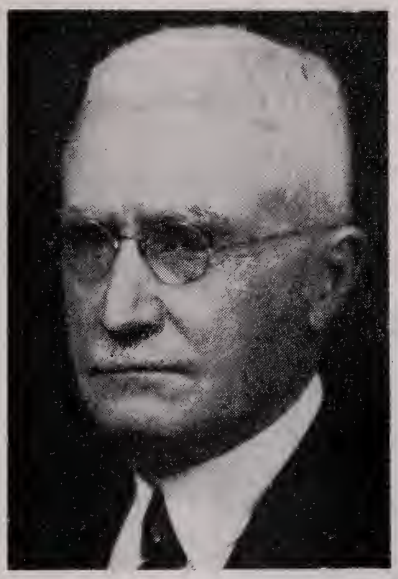
Dr. Guy had been a member for many years of the State Medical Association and American Medical Association through the Eastland County Medical Society during his residence at Carbon and Gorman, and the Erath-Hood Somervell Counties Medical Society after his location in Dublin. He served the latter society as president in 1938. After his location in Dublin he operated a small hospital in connection with his office until the demand for hospital service became so great that he erected the Guy Hospital which was opened on May 1, 1939, and which he had operated since that date. In addition to a large and successful practice, Dr. Guy was considered one of the foremost citizens of Dublin. He took an active part in the civic development of the town. He was also an active member of the Baptist Church and a leader in Masonry. He was a member of the Dublin Development Luncheon Club.

Dr. Guy was married December 5, 1904, to Miss Rosa Lovett of Carbon, Texas, who died December 5, 1911.

Dr. Guy was married to Miss Bernice Rucker of Dublin, Texas, in May, 1934, who survives him. He is also survived by a son, Aviation Cadet W. H. Guy, Jr., stationed at San Antonio; a daughter, Mrs. Myrtle Coyle, New York City; a brother, J. Guy, Carbon; and four sisters, Mrs. Amanda Morris and Mrs. Scott Noble, Carbon, Mrs. Nora Vaugh, Middlewater, New Mexico, and Mrs. Clyde Boles, Sanderson.

Dr. Kenneth Hazen Aynesworth of Waco, Texas, died October 30, 1944, in a Waco hospital, of cerebral hemorrhage.

Dr. Aynesworth was born February 9, 1873, at Florence, Texas, the son of George Levin and Ellen (Hickman) Aynesworth. His academic education was received in Baylor University, Waco, which he attended from 1892 to 1894. His medical education was received in the medical department of the University of Texas, Galveston, from which he was graduated in 1899. After his graduation he served an internship in John Sealy Hospital, Galveston, following which he was superintendent of that hospital for one year, serving during the same year as demonstrator of anatomy in the University of Texas, School of Medicine. In 1902, he went abroad for postgraduate work in Freidrich Wilhelm University, Berlin, Germany. He then located for the practice of surgery in Waco in 1903, which was his home for the remainder of his professional life.



DR. K. H. AYNESWORTH

Dr. Aynesworth was a member continuously during his professional life in Waco of the McLennan County Medical Society, State Medical Association and American Medical Association. He served the State Medical Association as Secretary of the Section on Surgery in 1914. He served McLennan County Medical Society as president in 1939. He was a member of the Southern Surgical Society, Texas Academy of Science, Texas State Historical Association, Alpha Mu Pi Omega medical fraternity and Alpha Omega Alpha honorary medical fraternity. He was a Fellow of the American College of Surgeons, the Southern Surgical Society, the West Texas Archaeological and Paleontological Association, founder member of the Philosophical Society of Texas, and a member of the American Board of Surgery. He had been consulting surgeon for the Missouri-Kansas-Texas Railway since 1906 and a member of the surgical staff of Providence Sanitarium.

He served as a member of the Waco Board of Health from 1903 to 1913. In addition to his manifold professional responsibilities and positions of leadership, Dr. Aynesworth served both his city and state as an educator. He served on the Waco School Board from 1907 to 1917 and the State of Texas as a regent of the University of Texas from 1933 until his death. He had been chairman of the Waco City Planning and Zoning Commission since 1930, commissioner of the housing authority of Waco since 1938, and had served as chairman of the Baylor Centennial Foundation. A foremost archaeologist and collector of archaeological specimens, Dr. Aynesworth made an outstanding contribution to Baylor University of a collection of Texiana, the second largest in existence, on which he had spent more than $200,000. Dr. Aynesworth had also contributed thousands of specimens of Indian archeology to Baylor University. He was a member of the Baptist Church and a Mason.

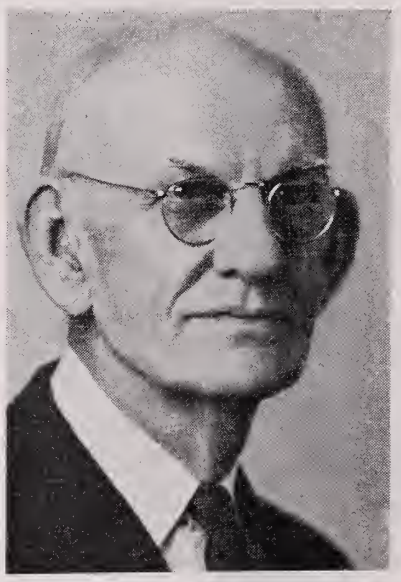
Dr. Aynesworth was not only an authority on surgical subjects but a historian of note. He was the author of "Twenty-One Indian Skulls of Central Texas," and "Flint Arrow-Head Wounds of Bone as Shown in Skeletons of Central Texas," and other articles of special interest on archaeological subjects.

On the occasion of his death, appropriate recognition was given of his outstanding services to his city and state educational institutions. He was a foremost citizen of Texas as well as a surgeon of exceptional ability.

Dr. Aynesworth was married December 31, 1902, to Miss Maud Bryan in St. Maurice, Louisiana. He is survived by his wife; two sons, Corp. K. H. Aynesworth, Jr., U. S. Army, and Dr. Brian Aynesworth, Major in the U. S. Army overseas; two daughters, Mrs. Wilson Crosthwait, Waco, and Mrs. Thomas Clifton Mann, Washington, D. C.; and two brothers, Dr. Horace T. Aynesworth, Waco, and Levan Aynesworth, Fresno, California.

Dr. John Minos Feemster Gill of Wichita Falls, Texas, died December 10, 1944, in a Waco hospital, of arteriosclerosis, following an extended illness. He was buried at his old home town, Cameron, Texas.

Dr. Gill was born May 30, 1868, in Prescott, Arkansas, the son of John Thaddeus Whitfield and Sarah Elizabeth (Steele) Gill. His early education was received in the public of this state. He began the study of medicine in the Louisville School of Medicine, completing his medical education in Tulane University School of Medicine, New Orleans, from which he graduated in 1889. He began the practice of medicine near Prescott, Arkansas, where he remained eighteen years. In 1907 he located in Temple, Texas, as a member of the staff of King's Daughters Hospital. Six months later he moved to Cameron and became associated with Dr. Edward N. Shaw in the operation of a small sanitarium which he continued to operate alone after the death of Dr. Shaw until 1915. He was then appointed physician and surgeon of the Texas State Confederates Home for Veterans in Austin, Texas, which position he held until 1918. He then resigned to enter the medical corps of the U. S. Army as a captain during World War I, being stationed at Fort Oglethorpe, Georgia, Camp Travis, Texas, Charleston, South Carolina and Fort Caswell, North Carolina. After the Armistice, Dr. Gill returned to private practice, locating at Burkburnett in 1919, where he remained until 1928. He then accepted a position as a member of the staff of the Abilene State Hospital, where he remained thirteen years, ten of which he served as assistant superintendent. He then served for sev-



DR. J. M. F. GILL

eral months on the staff of the San Antonio State Hospital and at the Rusk State Hospital, Rusk, until November 1, 1943, when he was transferred, at his request, to the Wichita Falls State Hospital. He continued in service at that institution until ill health compelled his retirement.

Dr. Gill had been a member for many years of the State Medical Association and American Medical Association through the county medical societies of his various places of residence. Prior to his location in Texas, he served as president of the Nevada County Medical Society of Arkansas. He was a member of the American Legion and Knights of Pythias. He was an ordained elder in the Presbyterian Church, to which institution he had rendered signal service as a lay member. Dr. Gill was held in the highest esteem by all who knew him as a conscientious, ethical and capable physician.

Dr. Gill was married October 11, 1893, to Miss May Terry of Prescott, Arkansas. He is survived by his wife and two daughters, Mrs. C. H. McCall, Pittsburgh, Pennsylvania, and Mrs. Russell D. Cunningham, Electra. He is also survived by a sister, Mrs. Mattie L. Smith, Los Angeles, California; and two brothers, J. Oscar Gill, Texarkana, Arkansas, and Percy G. Gill, Denison.

Dr. Charles Curtis Taylor of Cooper, Texas, died December 1, 1944, at his home, of diabetes and ascites.

Dr. Taylor was born September 1, 1871, in Lake Creek, Texas, the son of B. B. and Martha A. Taylor. His academic education was received in the East Texas Normal College. His medical education was obtained in Vanderbilt University School of Medicine, from which he was graduated in 1894. He began the practice of medicine at Gough, Delta County, Texas, where he remained until 1898. He then located in Cooper, which was his home for the remainder of his professional life.

DR. C. C. TAYLOR

Dr. Taylor was a member of the State Medical Association, and American Medical Association continuously in good standing throughout his professional life. He was a charter member of the Delta County Medical Society. He had served that society as secretary continuously for forty-three years —from 1903 until his death, which is an outstanding record of service in the annals of the State Medical Association. He had served as health officer of Delta County. He had also served the Selective Service System as examiner for three years. Dr. Taylor found time from a busy general practice to take an active part in the church and civic life of his community. He was a charter member of the Lions' Club and had served as a member of the school board for thirty-one years, twenty-seven years as its president. He was a member of the Christian Church, and a member of the Woodmen of the World and Odd Fellows fraternal organizations. Dr. Taylor was highly esteemed by all who knew him. He was untiring in his devotion to his profession, and sincere, capable and conscientious in all his activities.

Dr. Taylor was married to Miss Anna Koontz, Richards, Missouri, in 1896. His first wife died in March, 1925. In 1928, Dr. Taylor was married to Miss Ethel Pinkston of Cooper, Texas, who survives him. He is also survived by two sons, Col. G. M. Taylor, Washington, D. C., and F. C. Taylor, Denison, Texas; a brother, L. B. Taylor, Lake Creek; and two sisters, Mrs. B. F. White and Mrs. R. L. Chamblis, Lake Creek.

Dr. William Mitchell Wolf of San Antonio, Texas, died suddenly of heart disease Dec. 8, 1944, while visiting on a ranch near San Antonio.

Dr. Wolf was born August 23, 1874, in Red Rock, Texas, the son of Mitchell and Rebecca (Hill) Wolf. His academic education was received in the Sam Houston State Normal College at Huntsville. His medical education was obtained in the medical department of the University of Texas, from which he was graduated in 1899. He served an internship in the Santa Rosa Hospital, San Antonio, following which he served that institution as house physician for seven years. He had been in active practice in San Antonio for forty-four years until ill health compelled his retirement about a year ago.

DR. W. M. WOLF

Dr. Wolf was a member continuously in good standing during his residence in San Antonio, of the Bexar County Medical Society, State Medical Association and American Medical Association. He served Bexar County Medical Society as first vice-president in 1903 and as president in 1905. He was a Fellow of the American College of Surgeons and served that organization as a regional director for many years until his death. He served as a major in the medical corps of the U. S. Army during the first World War.

Dr. Wolf was a Grand Knight of the Knights of Columbus, a member of the Order of the Alamo, and of the San Antonio Country Club. He was a member of St. Mary's Catholic Church. He was a highly esteemed member of the medical profession of San Antonio.

Dr. Wolf was married September 22, 1920, to Miss Edith Williams. He is survived by his wife; two sons, Major W. M. Wolf, M. C., now serving overseas; Ensign Thomas A. Wolf, U. S. N. R., now stationed in California; and one daughter, Edith Mary Wolf, San Antonio. He is also survived by two brothers, Mitchell Wolf, El Paso, and Thomas Wolf, Austin; and three sisters, Mrs. A. Bolton and Mrs. Mary Krueger, Zuell, and Mrs. Robert Ryan, Ottine, Texas.

Texas State Journal of Medicine

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Vol. XL **March, 1945** **No. 11**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

The Progress of Chiropractic Legislation.—We gave this subject rather extended consideration last month. It will be recalled that there are two bills, one of them (H. B. 29, by Rampy, Westbrook, Kirby *et al.*) seeks to amend the definition of the practice of medicine in the Medical Practice Act, so as to exempt chiropractors therefrom. The other (H. B. 34 by Westbrook *et al.*), constitutes the chiropractic practice act, and seeks to set up the chiropractic branch of the healing art as a practice outside the range of the Medical Practice Act, and the restrictions of the Constitution of the State of Texas in the matter of discrimination as between schools of medicine. As already pointed out, the bill falls far short of these objectives—but that is another story.

Hearings on these bills were conducted by the Health Committee of the House, and a hearing on the companion bill to H. B. 34 in the Senate (S. B. 57 by Bullock), was conducted by the Health Committee of the Senate. Our cause was represented in these hearings, first and last, by President, Dr. H. F. Connally; President-Elect, Dr. C. C. Cody; Dr. N. D. Buie, member of the Legislative Committee; Dr. S. E. Thompson, Chairman of the Board of Trustees; Dr. Conn L. Milburn, and Drs. Phil Russell and E. W. Wilson from the Texas Association of Osteopathic Physicians and Surgeons. The chiropractors were represented by the authors of the bills, and a few others, not necessary to list here. In our opinion, the pleas in favor of these measures made at the hearings were ridiculously inadequate. Reliance was evidently had on other factors entering the problem. The pleas against the bills were, as would be expected, of the highest order, if, evidently, not entirely convincing. Even so, the Senate passed out its bill by a large majority. The Chairman of the Committee is the author of the bill.

The House Bills were eventually referred to the Attorney General for opinion as to their constitutionality. The chiropractic practice act (H. B. 34) was voted down by the committee by a majority of one, but after some parliamentary maneuvering on the part of the opponents of the bill, this action was rescinded and the bill referred to the Attorney General, as stated. It appeared to be the idea of the opponents of these bills, that much travail might be avoided could the Legislature, in advance, be assured of their unconstitutionality. It does not appear that there is much to say in favor of useless, highly controversial legislation during these trying war times. Beyond any doubt, both of the chiropractic bills are unconstitutional. A decision of the Court of Criminal Appeals clearly indicates that. As we have said before in these columns, there is not a chance to evade the issues in the decision in question, because they are fundamental and basic.

The Progress of Naturopathic Legislation.—We have heretofore discussed this legislation. It closely follows the pattern of chiropractic legislation. Like the chiropractic strategy, the naturopaths sought recognition through two bills, one (H. B. 97 by Morgan)

exempting naturopathic practitioners from the application of the Medical Practice Act, the exemption differing from that sought by the chiropractors in that it was not attached to the definition of the practice of medicine in the Medical Practice Act but, rather, to that section of the Medical Practice Act which has to do with exemptions. The naturopathic practice act (H. B. 82 by Morgan), like the chiropractic practice act, follows closely the scheme of the Medical Practice Act, and seeks in a devious manner to evade the interdictions of the now often quoted decision of the Court of Criminal Appeals in the Halsted case.

As a matter of fact, these bills would have less opportunity of being declared constitutional than would the chiropractic bills, in that there is no legal definition of naturopathy, and the attempt to set up a legal definition must be abortive in that respect, in view of the fact that the practice of naturopathy is set up in the bill as covering a large part of the field of of drugless therapy, dietetics, vitamin therapy, mechanotherapy, and other sorts and varieties of therapies known only to those who devised them. Unlike the chiropractic legislation, the object of the practice of naturopathy was frankly stated as that of treating sick people. In the chiropractic bills, chiropractors at least profess not to do that.

There were the usual hearings on these bills, in which hearings the opposition was represented by Dr. J. L. Love of the Texas Association of Osteopathic Physicians and Surgeons, and Dr. C. C. Cody, President-Elect of the State Medical Association of Texas.

The proponents of the bills were represented by the following: their author, Representative Morgan; an Infantry Officer in the United States Army, Major Arthur Johnston (in uniform); a Dr. Harry A. Brown, Canyon, who claims to be a naturopathic physician, and an Air Force Officer, Lt. Col. Phelps of the Army (also in uniform).

The proponents of this bill made a fairly comprehensive fight in its favor, and the opponents, while not having a great deal to talk about, spoke rather convincingly, or so it would seem. However, the bill was passed out favorably by a voice vote, which appeared to be unanimous. There was a record vote on the exemption measure, of fifteen to two. No effort has been made to analyze the situation and determine just why this bill was passed by the committee, with such a vote. According to our observation the proponents of these measures were not overly enthusiastic about their success, and also according to our observation, the chiropractors, of which there was a large number present at the hearing, were extremely indignant. As between the chiropractic and naturopathic bills, the former were models of constitutionality and legislative propriety in comparison with the latter.

Attorney General Declares Chiropractic Bills Unconstitutional—A belated JOURNAL enables us to present the opinion of the Attorney General on the two chiropractic bills, H. B. 29 (By Rampy, Westbrook, Kirby *et al.*) and H. B. 34 (By Westbrook *et al.*), referred to elsewhere in these columns. It will be noted that both of the bills were referred to the Attorney General for an opinion as to their constitutionality, after the Health Committee of the House had voted them down by a majority of one.

We present here the opinions in question, which were prepared by Assistant Attorney General George P. Blackburn, but, of course, approved by Attorney General Sellers. The pertinent parts of the decision in question follow:

H. B. 29.—"An inspection and study of said House Bill No. 29 discloses that it is intended to amend Article 4510, Chapter 6, Title 71, of the Revised Civil Statutes of Texas of 1925, so that said article, from and after the effective date of the bill, would read as follows:

"'Article 4510. Any person shall be regarded as practicing medicine within the meaning of this law:

"'(1) Who shall publicly profess to be a physician or surgeon and shall treat, or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury, by any system or method, or to effect cures thereof; except a chiropractor engaged in palpating, analyzing, and adjusting the articulations of the human spinal column by hand only;

"'(2) Or who shall treat, or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury by any system or method, or to effect cures thereof and charge therefor directly or indirectly, money or other compensation; except a chiropractor engaged in palpating, analyzing and adjusting the articulations of the human spinal column by hand only.'

"The effect of the subsection of the bill quoted above as (1) would be to permit a chiropractor engaged in palpating, analyzing, and adjusting the articulations of the human spinal column by hand only to publicly profess to be a physician or surgeon, and to treat or offer to treat diseases or disorders, both mental and physical, as well as physical deformities and injuries, and to effect cures thereof without being regarded as practicing medicine.

"The effect of the subsection of the bill labeled (2) would be that a chiropractor engaged in palpating, analyzing and adjusting the articulations of the human spinal column by hand only may treat, or offer to treat any disease or disorder, mental or physical, and any physical deformity or injury, and to effect cures thereof and charge therefor either directly or indirectly, money or other compensation without being regarded in law as practicing medicine.

"Your attention is respectfully directed to Article 16, Section 31, of the Constitution of Texas, providing as follows:

"'The Legislature may pass laws prescribing the qualifications of practitioners of medicine in this State, and to punish persons for malpractice, *but no preference shall ever be given by law to any schools of medicine.*' (Emphasis ours).

"The word 'medicine' as used in the above referred to constitutional provision has been defined by the highest courts of our land as meaning and embracing the art of healing by whatever scientific or supposedly scientific method. The courts have held that:

"'The word "medicine" as used in the said constitutional provision meant the art of preventing, curing or alleviating disease, and of remedying, as far as possible, results of violence or accident; the courts have held that the word "medicine" meant some thing or some method supposed to possess curative powers.' (See the case of ex parte Collins, 57 Cr. R., page 2, opinion by Judge Brooks; affirmed by Supreme Court of United States, 32 S. Ct. 286; and cited in the late case of ex parte Halstead, 182 S. W. (2d) 479, by the Court of Criminal Appeals of Texas.)

"It is elementary that the legislature, by the device of changing a definition in the Constitution, cannot amend the Constitution.

"It is our opinion, and you are so advised, that House Bill No. 29 contains provisions which are expressly forbidden by the constitutional provision cited above. A provision of law providing that a chiropractor engaged in palpating, analyzing and adjusting the articulations of the human spinal column by hand only may publicly profess to be a physician or surgeon and to treat or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury and to effect cures thereof, and to charge therefor and to receive compensation therefor, without subjecting himself to the pains and penalties provided in law for all others who do the things enumerated in said Article 4510, without previously having complied with the law with reference to those who so do—plainly constitutes the giving of a preference by law to a school of medicine.

"Such a bill as is House Bill 29, would plainly be void because in contravention of the Constitution."

H. B. 34.—"The bill about which you inquire, as shown by the caption and contents thereof, defines 'chiropractor' and 'chiropractic' and is intended to regulate the practice of chiropractic; it provides a source from whence all expenses incurred by provisions of the act shall be paid; it creates a Board of Examiners for the examination and licensing of chiropractors, and prescribes the powers, qualifications and duties of such examiners; it provides for the registration of chiropractors and for the granting of chiropractors' licenses by reciprocity; it makes provisions for the revocation and suspension of chiropractors' licenses, and makes provision for enforcement of the act; it fixes penalties for violations of the act; it purports to give no authority to prescribe or use medicine or surgery in the treatment of human disease; it provides that the use of the title of 'chiropractor' and the practice of 'chiropractic' as defined in the act, shall not be construed as the practice of medicine; and it prescribes the duties of district clerks with reference to the keeping of certain records.

"Section 1 of the said Act specifically defines 'Chiropractic' as follows:

"'Chiropractic is hereby defined to be (a) the employment of objective or subjective means, without the use of drugs or surgery, for the purpose of ascertaining the alignment of the vertebrae of the human spine, and (b) the practice of adjusting the vertebrae by hand to correct or remedy any defect or abnormal condition of alignment.'

"Said Section 1 further provides that 'nothing herein shall be construed to permit chiropractors *to treat the human spine for any defect whatsoever in any manner* nor to administer or prescribe any drug *or physical treatment whatever*, unless such chiropractor is a regularly licensed physician or surgeon under the laws of this State.'

"Said Section 1 defines a "Chiropractor" as follows:

"'A Chiropractor is a practitioner of chiropractic, as that term is defined in this section.'

"Section 12 of the Act, among other provisions, requires that candidates for license to become a chiropractor and to practice chiropractic must successfully undergo examinations on 'practical, theoretical and physiological chiropractic, and in the anatomy, physiology and pathology of the human spine as applied to chiropractic.'

"The Act provides, among other things, that those who successfully pass the required examination for license to practice chiropractic, shall be duly licensed thereto, and shall receive certificates testifying to the fact that the holder is duly licensed to practice chiropractic in the State of Texas.

"Each person licensed to practice chiropractic, as 'chiropractic' is defined in the Act, shall annually pay a registration fee of not more than $15.00 in order to keep in full force and effect his right to practice chiropractic in Texas.

"In regard to these matters we observe as follows:

"Our courts have almost universally held that a law is inoperative, ineffective, void and uninforceable if it is so uncertain in its terms—so vague in its expression—that it cannot be understood. Where a statute is so meaningless in its terms that the real intent of the Legislature in enacting the law is a matter of conjecture, the act is not a valid one. (See State v. Hadle, 41 Tex. 404; Abbott v. Andrews, (Com. of App.) 45 S. W. (2d) 568, reversing 29 S. W. (2d) 885; I. & G. N. R. R. Co. v. Mallard, (Comm. of App.) 277 S. W. 1051; Hines v. Foreman, (Comm. of App.) 243 S. W. 478; Sanders v. Lowrimore, (Civ. App.) 73 S. W. (2d) 148; Beaumont Traction Co. v. State, 122 S. W. 615; Pincus v. State, (Cr. App.) 70 S. W. (2d) 417; Wilson v. State, 123 Cr. R. 415; King v. State, (Cr. App.) 36 S. W. (2d) 490; Anderson v. State, 113 Cr. R. 450; Cinadr v. State, 108 Cr. R. 147; Ratcliffe v. State, 106 Cr. R. 37; ex parte Carrigan, 92 Cr. R. 309, 244 S. W. 604; ex parte Slaughter, 92 Cr. R. 212; Parroccini v. State, 90 Cr. R. 320; Snider v. State, 89 Cr. R. 192; Russell v. State, 228 S. W. 566; Griffin v. State, 86 Cr. R. 498, 218 S. W. 494; Augustine v. State, 41 Cr. R. 59, 96 Am. S. R. 765.)

"A modification of the above stated doctrine well recognized in law is that one indefinite, or vague, nonunderstandable provision of a statute will not render the remainder of the statute invalid unless the remainder is tainted with the same vice of uncertainty. (See Tarry Warehouse & Storage Co. v. Price, 76 S. W. (2d) 162, error dismissed; Texas Employers Insurance Association v. City of Tyler (Civ. App.) 283 S. W. 929; Ex parte Curry, 96 Crim. Rep. 3, 255 S. W. 730.)

"But the highest authorities in Texas hold that where a part of a law is invalid, and the invalid part is such an intimate part of the remainder that the remainder cannot be separated from it and leave a whole, understandable law, then the entire law is invalid. This is particularly true where the valid part and the invalid part are interdependent and nonseparable. (See Abbott v. Andrews, (Com. App.) 45 S. W. (2d) 568; Galveston, H. & S. A. R. Co. v. Duty, (Com. App.) 277 S. W. 1057.)

"The application of human reason and of well known rules of statutory construction to the subject

matter of this opinion inform us that the definitions of 'chiropractor' and of 'chiropractic' as contained in the Act under examination, are the cornerstones upon which the whole Act is based; these two definitions are inseparable from the remainder of it, and without them the whole Act becomes instantly meaningless.

"Now, an analysis of this Bill as submitted to us discloses the following situation will result from its passage, if it should be upheld by the courts:

"A citizen will successfully pass the required examination in the prescribed subjects of practical, theoretical and physiological chiropractic, and in the anatomy, physiology and pathology of the human spine as applied to chiropractic. He will then become a licensed 'chiropractor'—that is to say, 'One who practices chiropractic as chiropractic is defined in the Act.' He will duly receive a license from the State of Texas to practice chiropractic; that is to say, he will receive a license from the State to:

"(a) Employ objective or subjective means, without the use of drugs or surgery, for the purpose of ascertaining the alignment of the human spine, and—

"(b) He will receive a license from the State of Texas permitting him to practice the adjusting the vertebrae by hand to correct or remedy any defect or abnormal condition of alignment.

"Now the chiropractor, thus licensed by the State of Texas, to follow his avocation as above set out, and by the terms of the license empowered to 'adjust the vertebrae by hand to correct or remedy any defect or abnormal condition of alignment,' will find himself forbidden by another sentence in the same section of the same act, 'to treat the human spine for any defect whatever *in any manner*,' and likewise he cannot prescribe or administer any drug or *physical treatment whatever* unless he is a regularly licensed doctor under the provisions of what is commonly known as the Medical Practice Act.

"If he were already a regularly licensed practitioner under the terms of the Medical Practice Act, he would not need the permission to treat, according to the principles of chiropractic or any other healing method of his choice, the mal-adjustment found by him.

"So what, then, can the courts, by the application of any recognized rules of statutory construction, find or say was the intent of the Legislature in enacting a law licensing a citizen to do a thing, and then in the same act forbidding him to do it?

"We think the provisions of the Bill under examination, in the particulars pointed out, are so vague, confused, nonunderstandable and contradictory as to be meaningless, and that insomuch as the said provisions pointed out as so tainted are nonseverable from the remainder of the Act, the whole Act must fall by reason of this invalid part. We think a law is void which defines an avocation, licenses a citizen to practice that avocation, sets up elaborate machinery for determining his qualifications to practice that avocation, and then forbids him to practice it or a part of it under pains and penalties of the law. For authority for this position we cite you to the cases which have been mentioned hereinabove.

"Moreover, should this Bill be reworded so as to obviate the fatal contradictions therein which have been animadverted to above—should the Act be so reformed as to give the chiropractor in apt words the power and authority and right to do what the said act provides for him being licensed by the State of Texas to do, we are of the opinion it would still be a void act because it would be in violation of the provisions of the Texas Constitution.

"Your attention is respectfully invited to the provisions of Article 16, Sec. 31, of the Constitution of Texas, which is as follows:

"'The Legislature may pass laws prescribing the qualifications of practitioners of medicine in this State, and to punish persons for malpractice, *but no preference shall ever be given by law to any schools of medicine.*' (Emphasis ours.)

"The italicized portion of said constitutional provision which we have copied above, means that the practitioners of medicine in Texas, of whatever school, must be admitted to the practice of the profession of medicine through the same gate, and in being admitted to said practice must possess the same qualifications. The Constitution does not require that these qualifications shall be the same for all schools of medicine.

"The Bill in question prescribed different educational qualifications for the practitioners of chiropractic than are those required by law of the other practitioners of the healing art. The Bill does not repeal the requirements now prescribed by law for the other schools. This Bill would therefore, in the face of the express prohibition contained in said Article 16, Section 31, of our Constitution, set up an express preference for one school of medicine over the other schools of medicine.

"The word 'medicine' as used in the above quoted constitutional provision does not have the narrow meaning of a pill or potion. It has been interpreted and defined by our Court of Criminal Appeals as meaning and embracing the art of healing by whatever scientific or supposedly scientific method. The court said that the word 'medicine' as used in the constitutional provision referred to (meaning Article 16, Sec. 31, supra) meant the art of preventing, curing or alleviating diseases, and of remedying, as far as possible, results of violence or accident; the court held that the word 'medicine' meant something or some method supposed to possess curative power.' (See ex parte Collins, 57 Cr. Rep. p. 2, opinion by Judge Brooks; affirmed by Supreme Court of United States, 32 S. Ct. 286.)

"The Legislature does not have the power to amend the above quoted provision of our Constitution by the device of changing the definition of a word used in the Constitution. It is an elemental principle of law that the Constitution of Texas cannot be amended by legislative act.

"By reference to the decisions of our courts in cases where chiropractors have been tried for alleged violations of the medical practice act, all of which is judicial history within the knowledge of the Legislature; by reference to the pages of contemporary history, recording present-day facts to which the courts cannot close their eyes, by reference to the legislative history of enactments relative to chiropractors, by common knowledge, and by reference to the terms of this Bill itself, we are of the opinion that our courts of last resort will unanimously hold that chiropractic is a school of medicine within the meaning of the Constitution. It is certainly so regarded and advertised by its practitioners, champions, friends and adherents as 'an art of healing by a scientific method.' It claims to be, most certainly, an 'art of curing, preventing or alleviating diseases,' and it is equally certain that it professes to be a 'some thing or some method supposed to possess curative power.' It is either described by those terms or it is not. If it is described by those terms, it falls within the meaning and purview of the quoted constitutional provisions. If it falls without all of said terms and is embraced within none of them, then it has nought to do with public health and the Legislature is without power to regulate it. (See opinion of our Court of Criminal Appeals written by Judge Davidson in the case of Ex parte W. B. Halstead, 182 S. W. (2d) 479."

We quote these opinions in full because of their extreme importance in connection with

efforts of cultists to set up their respective groups as qualified to treat the sick, without having undergone at least the necessary, basic training of all who would assume the considerable responsibility for the health and lives of the public. While these decisions have no force except advisory to those who sought it, it is valuable in that connection, and grouped with the decision in the Halstead case, sets up a rather complete bar to this sort of thing. The two decisions referred to should constitute a bar to naturopathic legislation, heretofore discussed, and they offer our readers ample material for use in corresponding with their Representatives and Senators in the Legislature.

There Will Be No Annual Meeting This Year.—The Office of Defense Transportation has denied our request for permission to hold it or anything like it. The following telegram is quoted:

> "Your application for permit to hold convention and exhibits Galveston May 7-10 has been reviewed. Permit denied. This denial does not preclude an exempt type of convention with purely local attendance without numerical limit plus fifty out-of-town persons."

This denial is to the plea made by our Executive Council that the regular annual meeting be allowed this year, in view of the contention of the Council that the meeting would be in line with the war effort rather than in contravention thereof, even in part.

When the news was broadcast that no convention with outside attendance of more than fifty would be allowed, because of congested travel and hotel conditions, which the Office of Defense Transportation held was bad enough without being cluttered up further by attendance on such conventions, the problem was submitted to our Council on Scientific Work. This Council decided that it would be best to acquiesce in the decision of the Office of Defense Transportation, and abandon at least our plans for meetings of the Scientific Sections. This advice was presented to the Executive Council, together with a brief discussion of the problem, and the Executive Council decided, by a vote of 17 to 13, that the meeting should be held if permission could be secured therefor, on the ground that the meeting would be of such nature as to improve medical service to the public, the war industries, the public health, and even the armed forces. The members of the Council had in mind the many meetings of the sort being promoted by the armed forces for the benefit of medical officers. It was felt that as many or more medical officers would attend our meeting as would attend any of the regional conferences thus conducted.

The situation as it has developed is simply this: The House of Delegates of the State Medical Association last year voted to hold the regulation annual meeting in 1945, in Galveston, at a date to be set by the Executive Council, provided conditions at the time were propitious, and the meeting could be held without interfering with the war effort, the facts in the case to be determined by the Executive Council. Under this mandate, the Executive Council, in due time, advised the Council on Scientific Work that the meeting would be held in Galveston, May 7-10, 1945, and that the scientific program should be prepared in accordance with custom and the by-laws of the Association. The section officers compiled the programs of their respective sections, and the Council on Scientific Work approved them in detail. Practically all arrangements were made by the Committee on Arrangements, at Galveston, and by the central office at Fort Worth, with those due to be concerned if and when the meetings were held, including hotels and the Chamber of Commerce at Galveston. Under the circumstances, and from the angle of parliamentary practice, the Executive Council must formally direct the abandonment of the meeting, and decide what is to be done from here on out. That has been done. There will be no annual meeting of the Association this year.

It is planned, however, to publish the programs of the Scientific Sections in the April number of the JOURNAL. It is also planned to publish in the JOURNAL, papers accepted for the various scientific sections, throughout the succeeding JOURNAL year, with the discussions of those selected by section officers to discuss them, if they can be secured.

However, and in view of the fact that the State Medical Association of Texas is a corporation, chartered under the laws of the State of Texas, and must proceed in accordance with these laws, it is difficult to figure how the Association may continue to function under its Charter except and unless its House of Delegates is allowed to legislate at some time during the year. Therefore, the request has been made that it be permitted to do so. There is no disposition on the part of anybody to be unduly insistent in the matter, and certainly none to interrupt, even in part, the war effort of the Government. The devotion of the medical profession to the war effort in the several categories into which it has been divided for the purpose, is assurance of that fact.

The County Medical Society Library Endowment Fund received the following donations from county medical societies during the past month:

Wharton-Jackson-Matagorda-Fort Bend (Feb. 16, 1945)	$50.00
Jefferson (Feb. 26, 1945)	25.00
Wichita (Feb. 28, 1945)	100.00

The three donations listed here, added to the donations from four county medical societies reported in these columns in the February JOURNAL, give a total of $310.00 from seven of the 126 county medical societies composing the State Medical Association. Members of the Association who did not read the editorial in the February number (pp. 513-514) dealing with this subject, are urged to do so. The editorial referred to incorporated the very fine discussion of the needs of the Library for endowment funds and what might be accomplished with them in improving the service, in a letter from the Library Endowment Committee addressed to the County Medical Societies of Texas. We again commend its contents to the thoughtful consideration of any members of the Association.

Hospitals Should be the Judge of Qualifications of Staffs, regardless of status of any hospital concerned, was the decision of the Executive Council of the State Medical Association at a meeting March 14. The decision was made in a meeting called for the purpose of considering the legislative program of the Association, and is expressed in the following resolution, introduced by Dr. W. B. Russ of San Antonio, and adopted:

> "*Resolved,* that the State Medical Association of Texas is opposed to any law which limits the right of a hospital to be the judge of the professional qualifications of physicians for membership on its staff."

The purport of the above resolution is clear. As pointed out by the author at the time of its introduction, hospitals should not be required by law to base their selection of members of their staffs on the *reputability* of such physicians. A physician might be reputable and still not professionally qualified. Such physician, if excluded, might bring suit against a hospital that refused him staff membership. A regular physician might be highly competent and still not be professionally qualified because of unethical practices.

The matter of whether or not hospitals should be tax-free had no part in the decision of the Council.

CURRENT EDITORIAL COMMENT

Shock Therapy.—Shock Therapy is a term used for the general classification of a variety of methods used in the treatment of some types of major psychoses. All the forms of shock therapy produce drastic, but temporary, changes in physiologic function, all are accompanied by unconsciousness, and all are empiric treatments. The term "shock therapy" is used because the first method employed produced hypoglycemic coma, induced by insulin, and this hypoglycemic state has been called "insulin shock" by the medical profession generally.

There are three general categories or types of "shock treatment:"

1. The first and oldest type is "Insulin Shock" or "Hypoglycemic Coma" treatment, developed by Manfred Sakel in Vienna in 1930 and introduced to America in 1936. This treatment is used in the treatment of the schizophrenic psychoses. It remains an empiric treatment in spite of many efforts to explain its mode of action. The efficiency of the treatment varies with the various prognostic features of the individual case, but other things being equal it is the most effective form of treatment available for the schizophrenic group of psychoses. The Temporary Commission of the New York State Hospitals found that 79.5 per cent of the schizophrenic cases treated with insulin shock were able to leave the hospital as compared with 58.8 per cent of untreated schizophrenic patients who were able to leave. The saving in human resources and in chronic hospital care represented by these results is tremendous. The technique consists in administering daily, increasing doses of regular insulin until hypoglycemic coma is produced. The comas are induced daily for from thirty to forty days, depending on the patient's progress. This form of treatment is dangerous in untrained hands, but training in the method is available in most psychiatric training centers.

2. The second form of shock treatment is the pharmacologic convulsive treatment. This therapy was introduced in the United States by L. von Meduna, shortly after the introduction of the insulin treatment. Metrazol, intravenously, as first used by Meduna, remains the most effective drug for producing the convulsions. Other drugs such as picrotoxin have been used but they have no outstanding advantages over metrazol and they are, in general, less dependable. This form of therapy is simple and much less expensive to administer than insulin treatment. The results in the treatment of schizophrenia

have been below our original expectations because of the rather high relapse rate. In the manic-depressive reactions (both the manic and depressive phases) and in the involutional melancholias, convulsive therapy has produced spectacular results. Under convulsive treatment patients of this type usually recover from the psychotic episode in one to four weeks. During the course of the illness they are much more coöperative and present an easier nursing problem after only one or two convulsions. The technique consists in the intravenous injection of metrazol in sufficient dose to produce a generalized convulsion, the dose being determined in each patient and varying from 3 cc. to 10 cc. or more in some cases. Training in this form of treatment is available in most teaching centers.

3. The third type of shock treatment is also a convulsive treatment but the convulsions are induced by an electric current applied to the head over the motor areas by means of a specially designed apparatus. The current passes between the electrodes and induces a convulsion and unconsciousness immediately. Neither patient nor operator feels any shock from the electricity unless they are inadvertently grounded. "Electro-shock" or "Galvanotherapy" as it is commonly called was developed by Cerletti in Italy and introduced to America by Kalinowski. This form of treatment has the same therapeutic uses as "metrazol treatment." Electro-shock has supplanted metrazol shock in many institutions because it is simpler to give, easier to control, and less unpleasant for the patient. The patients recover from the individual treatment rapidly and are able to resume normal activity in two to three hours. For this reason many persons receive the treatments on an out-patient basis. The convulsions are given two or three times per week, as indicated, and a series may vary from two to thirty convulsions depending on the patient's reaction, the average case requiring six or eight.

The shock therapies are not a panacea for all mental illness, but at this time they are the best treatment available for patients suffering from schizophrenia, manic-depressive psychosis or involutional melancholia. In properly selected cases, the appropriate form of shock therapy will restore the mental health of a respectable percentage of patients and enable them to return to their homes as useful citizens. Complications are infrequent, in skilled hands, and seldom fatal.

JACK R. EWALT, M. D.
Department of Neuropsychiatry, University of Texas, School of Medicine, Galveston.

ACUTE OBSTRUCTIONS OF THE COLON

G. V. BRINDLEY, M. D.
TEMPLE, TEXAS

The high mortality which is associated with obstructions of the colon and the conviction that a better comprehension of the etiology, the diagnostic criteria, the pathology and the proper methods of treatment would lessen this mortality are the primary reasons for the selection of this subject for study. Ascroft and Samuel state that death occurs in 40 per cent of the patients with intestinal obstruction. Scudder, Zwemer and Whipple report a mortality of 35 per cent in a statistical study of 2,150 cases of obstructions of both small and large bowel. In a study of obstruction of the colon due to operable, malignant lesions, Gregg and Dixon report the surgical treatment of 121 cases with a mortality of 34.7 per cent. In a series of 34 cases of acute obstructions of the colon due to carcinoma seen at Scott and White Hospital, the surgical mortality was seven deaths, or 20.6 per cent.

INCIDENCE

Usually first thought is given to occlusion of the small bowel when intestinal obstruction is considered, because a majority of the obstructions occur in the small intestine. In a study of 104 cases of acute intestinal obstruction, Graham found 77 per cent involved the small bowel and 23 per cent the colon. Burgess reported that 18 per cent of 1,278 cases of obstruction were in the colon. A logical conclusion from such statistics is that the incidence of obstruction of the small to the large bowel is in the ratio of about four to one.

Intestinal obstruction is considered as acute or chronic in nature. The classification of many cases is naturally somewhat arbitrary. This is illustrated by statistics from the following authors referable to the incidence of acute obstruction of the colon due to carcinoma. The number reported by Rankin as having acute obstruction was 5 per cent; Gregg and Dixon, 5.5 per cent; Rea, Smith and Schwyzer, 15.2 per cent; Graham, 18 per cent, and Burgess, 35.67 per cent; whereas at the Scott and White Hospital in a series of 190 cases of cancer of the colon, 20.6 per cent were regarded as having acute obstruction.

ETIOLOGY

The etiology of obstruction of the colon is quite varied. Table 1, showing the causative factor in obstruction, emphasizes this fact. Actually most of the conditions list-

From the Department of Surgery, Scott and White Hospital, Temple, Texas.
Read before the Section on Surgery, State Medical Association of Texas, San Antonio, May 4, 1944.

ed only rarely produce an obstruction of the large intestine. It is in this portion of the intestinal tract particularly that an occlusion due to neoplasm is seen. Eighty per cent or more of all acute obstructions of the colon are due to cancer.

TABLE 1.—*Etiology of Obstruction in the Large Intestine.*

Congenital
Bands
Anomalous developments
Acquired
Non-neoplastic tumefactions
Diverticulosis
Tuberculosis
Typhlitis
Amebiasis
Actinomycosis
Lymphopathia venereum
Neoplastic tumefactions
Benign: lipoma, adenoma, papilloma, fibroma
Malignant: carcinoma, sarcoma, lymphoblastoma
Miscellaneous
Volvulus
Intussusception
Extrinsic tumor
Hernias: inguinal or intra-abdominal (incarcerated or strangulated)

Graham's statistics indicate that 79 per cent of obstructions of the colon are due to carcinoma; whereas Babcock places the percentage at 80, and Wangensteen writes that 90 per cent of the obstructions of the large bowel are due to carcinoma.

Volvulus is the next most frequent cause of obstruction of the large bowel. It accounts for about 10 per cent of such obstructions according to Benjamin. In Graham's series, 8 per cent were due to volvulus; whereas Dixon and Miller found 11.6 per cent were caused by this condition. A few years ago one of my patients developed volvulus of the cecum postoperatively. Dixon and Miller found only two other such instances in the literature and reported one additional case (Fig. 1*a* and *b*).

Since cancer causes 80 per cent or more of all obstructions of the colon and volvulus produces about 10 per cent more, there remain only 10 per cent which are due to all other conditions. These statistics should be borne in mind in a study of this subject. However, the less frequent causes of obstructions cannot be overlooked. In my own surgical experience I have seen obstruction due to most of the conditions listed in the table of etiology. Certainly it should be remembered that obstructions are caused by anomalies of development, diverticulitis, simple strictures, benign tumors, endometriosis and intussusceptions. An important fact is that many intussusceptions in adults are induced by tumors. Elliot and Corsaden report 33.3 per cent are caused by neoplasm (Fig. 2).

CLINICAL ASPECTS

Some facts pertaining to the clinical features deserve emphasis. Intestinal colic is invariably present. The pain is usually below the umbilicus. Peristaltic contractions are neither so frequent nor the pain so intense as that which occurs in obstructions of the small bowel.

A majority of the obstructions of the colon are in its distal portion and produce a rather general distention; however, this distention tends to be more around the periphery of the abdomen and a notable feature is the marked distention of the cecum. The distention is due in part to continued emptying of the ileum into the colon through a competent ileocecal valve; therefore, most of the obstructions of the large intestine are in the nature of a closed loop obstruction. The most pronounced distention is seen in cases of volvulus of the sigmoid. In such instances the patient usually has a large, localized, tympanitic mass in the abdomen, accompanied by acute tenderness and marked rigidity.

The higher the obstruction is located in the intestinal tract, the more copious will be the vomiting; therefore, vomiting is not a prominent symptom in obstruction of the colon.

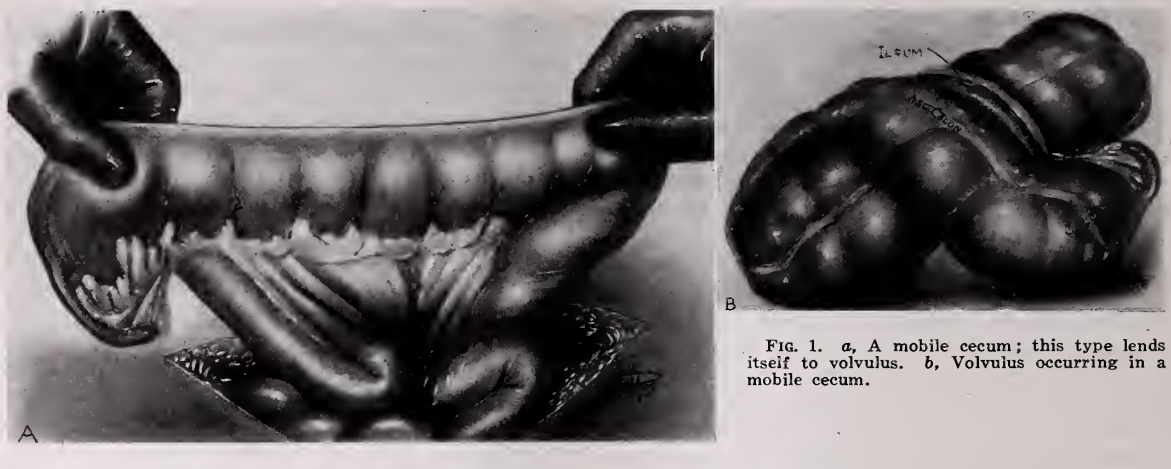

FIG. 1. *a*, A mobile cecum; this type lends itself to volvulus. *b*, Volvulus occurring in a mobile cecum.

However, the serious condition of the patient should not be minimized because of its absence.

A cessation of action of the bowel is to be expected in obstruction of the large bowel; however, one should not fail to recognize an obstruction because of some return of flatus and feces following an enema. Sometimes the peristalsis is so pronounced that it can be seen. The presence of visible peristalsis is modified by the completeness and duration of the obstruction, the thinness of the abdominal wall, and the intensity of the peristalsis. In some cases slight tension in the proximal coil of the intestine can be detected by general palpation. Frequently the movements of gas can be felt and a slight peristaltic wave can be elicited even when there is no visible peristalsis. Metallic tinklings and the rumbling of gas can be heard by auscultation synchronous with the attacks of pain. This is further proof of the existence of intestinal colic.

An important fact is that simple intestinal obstruction does not cause abdominal tenderness and rigidity. Their presence denotes peritoneal irritation; and this usually demands immediate resort to surgical measures. The marked biochemical changes which occur rapidly in obstruction of the small bowel are not seen in obstructions of the colon. The alterations in bodily chemistry which accompany obstructions in the colon develop slowly and seldom are pronounced. Due to the manner in which high and low obstructions influence metabolic changes, the patient will tolerate an occlusion of the colon much longer than he will that of the small intestine.

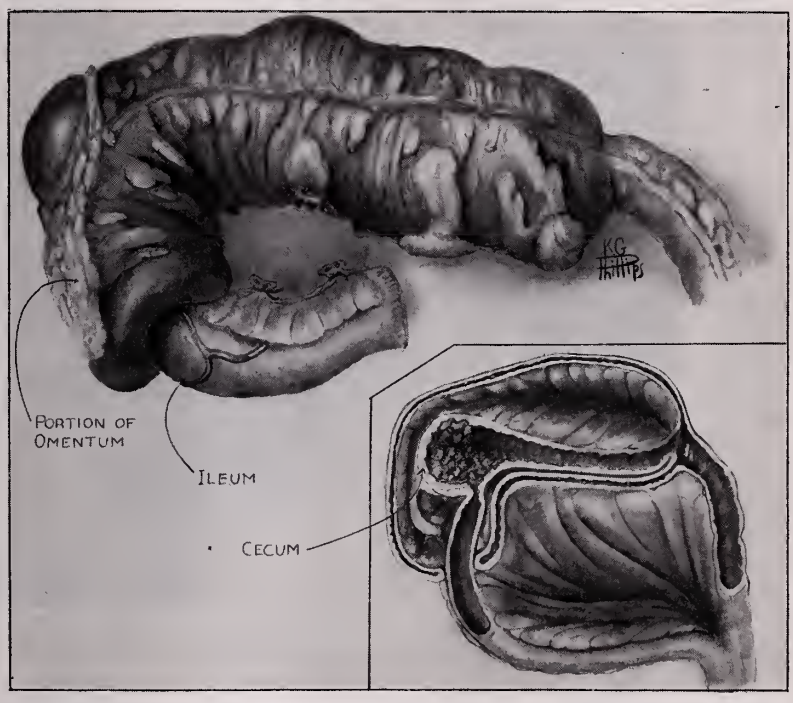

FIG. 2. Intussusception of the ileocecal region caused by carcinoma of the cecum.

DIAGNOSIS

The diagnosis will be evident in some cases; whereas in others it may prove to be a problem. The clinical history and physical findings are helpful.

By means of a scout film of the abdomen, the roentgenologist can determine usually whether or not an obstruction is present; and if so, whether the small or large bowel is involved. Gas shadows around the periphery of the abdomen are usually in the colon. Centrally placed gas is more likely to be in the small intestine. When dealing with obstruction of the large bowel, the dilated loops tend to be in a vertical plane, the haustra produce a wavy outline to the shadow and there are no straight line edges. When present, the fluid levels are wide, due to the larger caliber of the bowel (Fig. 3*a*). In the small intestinal occlusions, the distended coils form a transverse pattern which is at right angles to the body in a so-called herringbone or stepladder pattern. The loops are smaller in caliber and the mucosal folds cause a feather-like appearance on the film (Fig. 3*b*).

It is always injudicious to give barium by mouth to a patient in whom obstruction of the intestinal tract is considered likely. Sometimes in a suspected obstruction of the colon a small barium enema is permissible. This usually will enable the roentgenologist to confirm the diagnosis, determine the location of the obstruction, and frequently ascertain the nature of the pathologic condition producing the occlusion. The final diagnosis is dependent on a correlation of the history, the physical findings and the report of the roentgenologist.

TREATMENT

The proper treatment for obstruction of the large intestine is determined by the nature of the pathologic condition producing the occlusion. Obstruction due to bands usually demands only the severance of the bands. When the occlusion is due to a benign stricture, some type of entero-anastomosis around the obstructing segment will usually be found an adequate method of treatment. An extensive stricture of the

rectum may require a sigmoidostomy. Torsion of the intestine is treated by reduction or a resection of the volvulus, depending on the viability of the obstructed loop. When a resection of the volvulus is necessary, as a rule it should be performed by a multiple stage procedure. The first stage should be an exteriorization of the involved segment of bowel with restoration later of the intestinal continuity.

An endometrial adenoma occasionally will cause an incomplete obstruction of a subacute or chronic nature, making resection advisable. I have performed resections three times for such a condition. Cattell, in a review of 17 cases of endometrioma of the sigmoid and rectosigmoid, reports three patients for whom he performed resections. He did a combined excision in one case, believing that he was dealing with a malignancy. This emphasizes the importance of differentiating endometrial lesions from those of a malignant nature. I have seen 2 cases recently that were referred to the clinic with a diagnosis of carcinoma of the rectosigmoid, which on further study proved to be endometrial adenoma. In making this differential diagnosis, it is important to remember that carcinoma begins on the mucosal surface of the intestinal wall and that an endometrioma grows on the serosal surface. At the time of the operation, a thin specimen for biopsy shaved from the serosal surface of a suspicious lesion and examined immediately by frozen section technic will clarify the diagnosis. This has been found to be an advantageous procedure in a number of instances. An adequate section can be obtained without opening into the intestinal lumen when the tumor is an endometrioma. Most endometrial adenomas of the intestine can be controlled by surgical attention to the female generative organs or by irradiation therapy.

A diverticulitis seldom produces a complete obstruction. The partial occlusion which it causes can usually be treated satisfactorily by medical management. However, there is an occasional case of diverticulitis in which the symptoms are so persistent that a temporary decompression by a colostomy or cecostomy is indicated. Practically all obstructions due to diverticulitis are located in the region of the sigmoid and rectosigmoid. Usually a mass can be palpated which is larger, more tender, smooth, more mobile and not as firm as a malignant tumor. The roentgenologist can often determine the true nature of the pathologic condition present. Furthermore, it is an important fact that the coexistence of the two, carcinoma and diverticulitis, may occur. We have had a few cases in which this was true (Fig 4). Surgical judgment should determine the proper plan of management for all obstructions of the large intestine due to the less frequent pathologic entities.

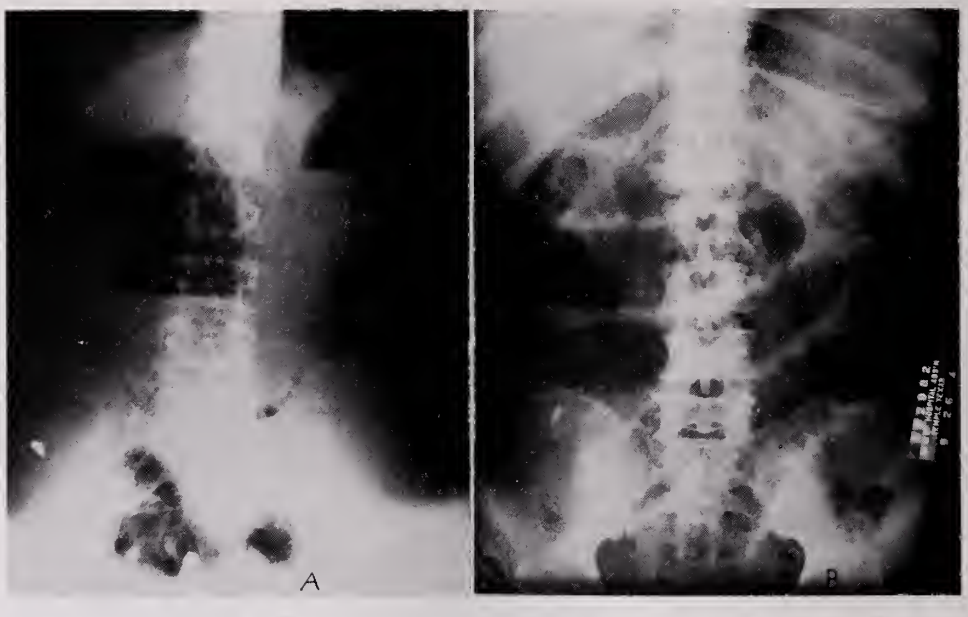

FIG. 3. *a*, Upright roentgenogram demonstrating a dilated colon and fluid levels in a case with obstructing lesion of the sigmoid. *b*, Upright roentgenogram showing a dilated small intestine in a case with obstruction of terminal ileum.

Since 80 per cent or more of obstructions of the large intestine are due to malignancy, the predominating question concerns the preferable regimen for a patient with an

occlusion of the colon caused by a malignant tumor. To cure such a patient it is necessary to resect widely the obstructing lesion. Experience has proved that a primary resection of the colon should never be done in the presence of an acute obstruction caused by a

FIG. 4. Roentgenogram exhibiting diverticulitis of the sigmoid with associated carcinoma and secondary obstruction of the sigmoid.

neoplasm because it is unnecessary and the mortality is prohibitive. Wangensteen writes that the mortality for resection is more than doubled if performed when the bowel is acutely obstructed. Gregg and Dixon re-

FIG. 5. Typical scirrhous carcinoma, which tends to predominate in the left colon. This in part accounts for the preponderance in the left half of the colon of obstructing lesions due to carcinoma.

ported the mortality was 47 per cent for primary resection when there was an acute occlusion; and when a surgical decompression was done primarily and later resection was performed, the mortality was 26.7 per cent. It is vitally important to evaluate properly the two conditions which the patient has. The carcinoma is a slow growing, chronic lesion of months' duration, whereas the obstruction is an acute process of only hours' duration which could soon prove fatal. The only rational procedure, therefore, is to relieve the obstruction, ignoring for the time the existence of the malignancy (Fig. 5). A

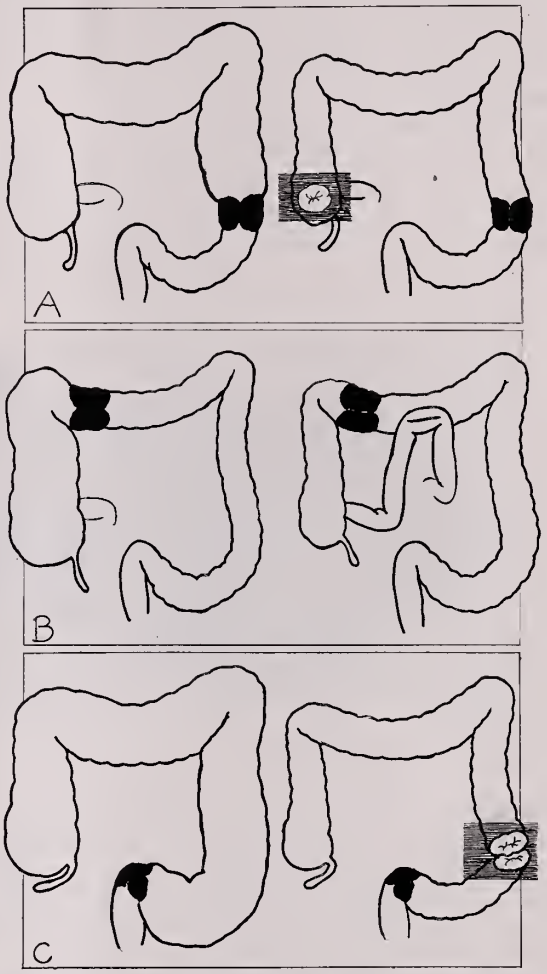

FIG. 6. *a*, A cecostomy will usually decompress satisfactorily an obstructing lesion of the left colon. *b*, An ileotransversostomy will usually decompress satisfactorily an obstruction of the right colon, since the anastomosis can be made into healthy tissue beyond the point of obstruction. *c*, A sigmoidostomy is the preferable procedure for a permanent decompression for obstructing lesions of the rectosigmoid and rectum.

cecostomy or a transverse colostomy is the preferable procedure when the obstruction is in the left colon, and statistics indicate that 87 per cent of the constricting carcinomas are in this portion (Fig. 6*a*). When this operation is performed promptly with little manipulation and without exploration, it usually will prove lifesaving. After a few weeks, when the patient has been rehabilitated and the inflammatory changes within the intestines have subsided, an investigation

can be made to ascertain the true nature of the pathologic process which caused the obstruction. Then such additional surgical measures as are necessary can be instituted with relative safety. An ileotransversostomy can be used to decompress an occluding lesion of the right colon (Fig. 7), because the ileum will be anastomosed to the transverse colon beyond the point of the obstruction where there will be a normal intestinal wall (Fig. 6*b*). A sigmoidostomy should be done for obstructing neoplasms of the rectosigmoid and the rectum (Fig. 6 *c*).

The viability of the intestine is the factor of primary importance in obstruction of the colon. Research appears to confirm that transperitoneal absorption of toxic products and permeation of the intestinal wall by virulent bacteria does not occur as long as the bowel is viable. In the majority of obstructions of the large bowel the chief factor threatening its viability is the increased intraluminal pressure from colonic distention. Evidently the imperative need of the patient with this condition is a decompressing procedure to relieve the distention. For this purpose we usually do a cecostomy.

FIG. 7. Adenocarcinoma of the cecum with secondary obstruction. Only 13 per cent of obstructions of the colon due to malignancy are in the right colon.

Forty-six cecostomies have been performed at Scott and White Hospital from 1929 through 1942. There were four deaths in this group, a mortality of 8.7 per cent. These forty-six cecostomies were carried out for various pathologic conditions. Twenty-two preliminary cecostomies have been done for resectible obstructing lesions of the left colon. Two deaths occurred in this group, a mortality of 9 per cent. These two deaths were of patients who were subjected to exploration at the time of cecostomy. This emphasizes the importance of doing a cecostomy without exploration for patients having an obstruction of the left colon. There were two deaths following the resection among 20 patients who came later to surgery. Each of these had an extensive perforating type of lesion of the splenic flexure and both were over 70 years of age. They should have been considered inoperable. It is seen that the total mortality was 18.1 per cent for the treatment of obstructing operable lesions of the left colon by a two-stage procedure. Even this mortality would have been lower if better surgical judgment had been exercised. Such figures, however, commend the use of a cecostomy for a decompressing procedure when there is an acute obstruction of the left colon.

SUMMARY

Approximately 20 per cent of intestinal obstructions occur in the colon. The etiology of obstruction of the large bowel is varied; however, a fact worthy of emphasis is that carcinoma produces the obstruction in this part of the intestinal tract in 80 per cent or more of the cases. Statistical data indicate that about 10 per cent of all malignant lesions of the colon produce acute obstruction; and of these, seven out of eight occur in the left half. Seventy per cent of the carcinomas of the large intestine are in patients over 50 years of age.

A diagnosis of the obstruction, its etiology and location can usually be made by an analysis of the history and physical findings supplemented by the roentgenologist's report on a scout film of the abdomen.

The proper treatment of an obstruction of the large intestine depends somewhat on the nature of the pathologic condition producing the occlusion.

Since so large a percentage of the obstructions of the large intestine are due to malignancy, the predominating question concerns the preferable management for a patient with an occlusion of the colon due to a carcinoma. Experience has proved that a primary resection of the colon should never be done in the presence of an acute obstruction which is due to a neoplasm, for it is unnecessary and the mortality is prohibitive. It is vital to recognize that this patient has two conditions, a carcinoma which is of a chronic nature and an obstruction which is an acute process. Therefore the imperative need of the patient is an operative procedure which will relieve the obstruction and thereby protect the viability of the intestine.

When strangulation obstructions are excluded, the chief factor affecting the viability of the intestine in the majority of obstructions of the large bowel is the increased intraluminal pressure from colonic distention. Temporizing measures and prolonged attempts to relieve this condition by medical treatment frequently will force such a patient to accept a hazardous rather than a relatively safe surgical decompression. A primary cecostomy or colostomy in the transverse colon is indicated; and when done promptly with little manipulation and without exploration, it will usually prove lifesaving.

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SPECIAL SCHOOLS FOR CHILDREN WITH HEART DISEASE

The experience of the Jesse Spalding School in Chicago, which is designed to furnish normal school and environmental education for physically handicapped children, "confirms the advantages of the special school for children with heart disease and suggests the extension of this type of endeavor to other communities where it may be practicable," *The Journal of the American Medical Association* for January 27 says in commenting on the findings of a survey of a group of children who had attended the Spalding school.

The survey covered a period of approximately ten years. Of the 130 examined and interviewed, 104 had either improved or remained in the same cardiac classification since leaving the school. Thirty-two of the women were married; 14 had borne 1 child, 3 had 2 children, 1 had 3 children, 2 had had four pregnancies and 2 were pregnant at the time rechecked. None of them reported that the heart condition had adversely influenced the pregnancy or labor to any extent.

RECTAL BLEEDING

ALVIN BALDWIN, M. D.
DALLAS, TEXAS

Rectal bleeding is one of the common conditions seen in every day medicine, yet which is often underestimated in importance. Frequently this condition persists with neither a careful history nor an adequate physical examination. Such information requires but little effort on the part of the physician and may mean the difference between rapid recovery and a chronic incurable illness.

It is desirable to know if the blood is bright red or dark in color. The bright red blood is usually thought of as coming from the rectum and the sigmoid colon; however, bleeding peptic ulcers in the face of hyperirritability and hyperperistalsis have at times produced a copious amount of bright red rectal bleeding.

The most common cause of the bright red rectal bleeding is internal hemorrhoids; bleeding from this cause occurs as a rule at the end of defecation and may be large in amount. Sometimes a bleeding hemorrhoid may retract up into the rectum and continue to bleed, and the blood will be passed a few hours later as dark clots. There is usually no pain with this type of hemorrhoid.

Frequently the bright red blood may come from an acute or a chronic fissure, and the bleeding will vary from a few drops to a teaspoonful. Often only a pink tinge on the toilet tissue will be noted. This condition very often is mistaken for hemorrhoids or, as the patient describes it, "itching piles." Fissures are quite painful and perhaps bring patients to the physician more frequently than any other rectal disorder. The urge to defecate is present, but the sphincter is spastic and refuses to relax; it is this patient who is constantly taking a laxative or an enema, learning at an early date that a liquid stool is less painful. Fissures untreated over a period of time become chronic ulcers.

Solitary or multiple polyps are often responsible for bright red or dark red bleeding from the rectum. These neoplasms are particularly important from the standpoint of being potentially cancerous, although as a rule when malignant degeneration does take place, it usually starts on the tip of the polyp. However, occasionally cancer cells are found at the base. Polyps vary in size from one millimeter to a size sufficiently large to produce intestinal obstruction.

Rectal bleeding in children below the age of 10 is most commonly caused by a low implanted polyp on the posterior rectal wall; this condition is most frequently seen in

Read before the Section on Medicine, State Medical Association of Texas, Fort Worth, April 20, 1944.

males. These polyps may prolapse and protrude through the anus; at times they are thought to be hemorrhoids.

Familial multiple polyposis may be present in the large bowel, often thousands of small polyps being present. Usually only one becomes cancerous, but they are all potentially cancerous.

Pseudo polyps, also responsible for rectal bleeding, are frequently seen in connection with ulcerative colitis. They are thickened areas of mucosa between some of the ulcers, and have a flat sessile appearance. Their importance lies in their being potentially malignant.

Another cause of rectal bleeding is adenocarcinoma, which certainly occurs often enough to be considered in every case until ruled out. Although not the most frequent, it is the most important cause of rectal bleeding; and one must remember at all times that carcinoma may be present with almost any other rectal lesion. Due to its responsiveness to treatment, an early diagnosis is especially desirable.

Sixty to 65 per cent of all cancers of the large bowel and rectum occur within reach of the index finger. On digital examination, carcinoma gives the impression of a firm, fungating mass attached to the rectal wall; often it is difficult to distinguish a cancer from some inflammatory lesions of the bowel wall.

For a still more adequate examination, the proctoscope is the physician's most useful instrument. Adenocarcinoma through the proctoscope usually appears to be a proliferating, fungating mass or an excavating ulcer. Its surface is necrotic and bleeds easily, while the surrounding mucosa of the remaining portion of the bowel presents a fairly normal appearance.

Some of the common symptoms of carcinoma above the lower sigmoid are dark blood mixed with mucus and pus; a recent change in bowel habit; loss of weight, and a varying degree of large bowel obstruction. Sometimes the patient has a marked degree of anemia. Particularly is it important to remember that in carcinoma of the cecum there may be present a very large tumor with no symptoms, because signs of obstruction occur late due to the liquid state of the feces. With malignancies of the cecum there is usually present a marked degree of anemia, often mistaken for pernicious anemia.

Stercoral ulcers may be present above an annular obstructing lesion, from which large amounts of blood, pus and mucus may be mixed with the stool.

Another important diagnostic procedure is a careful x-ray study, including fluoroscopic observation and a double contrast study on stereoscopic films, the latter facilitating the differentiation between polypi and diverticuli.

Bacillary dystentery in contradistinction to amebic dysentery is one of the important etiological factors in rectal bleeding. It is usually found where crowded and poor hygienic conditions exist. The cause bacteriologically is commonly ascribed to the Flexner or Shiga bacilli, which are differentiated by an agglutination test, wherein the Shiga bacilli produce an endotoxin and exotoxin and the Flexner produce only an endotoxin. This agglutination is carried out by testing the specific Shiga and Flexner antisera against the organisms found in the stool. By the end of a week the patient's blood develops specific agglutinins, during which period this test becomes very reliable. Here one finds the so-called "bloody flux"—mucus, pus and blood, with marked degree of tenesmus. There is evidence of a powerful diffusible toxin, and these patients frequently die of toxemia. Bacillary dystentery is similar to diphtheria in that a pseudo membrane exists, and the organisms, implanted locally, gradually penetrate deeper from the mucosa to the submucosa. In contrast to the ragged amebic ulcer, these ulcers are sharply defined. They rarely penetrate to the muscularis mucosa, but occasionally they coalese to form larger ulcers, the intervening mucosa becoming thickened and forming the so-called pseudo polypi. On healing, these lesions form considerable scar tissue covered by simple epithelium. If deep ulcers are present, stenosis of the bowel may occur with healing.

Amebic dysentery, often confused with bacillary dysentery, is caused by the Endamoeba histolytica ingested in the encysted form, containing usually four nuclei. They survive the gastric secretions which destroy the active form of Amoeba histolytica, and active amebae are liberated from the cysts in the lower part of the bowel. This active form in turn liberates a proteolytic ferment which produces a liquefactive necrosis of the mucosa first and may penetrate as deep as the serosa. The ulcers present a very ragged, moth-eaten appearance. They are all undermined, but one of the most constant characteristics of the amebic infection is that the intervening mucosa is perfectly normal in appearance. The active form may penetrate the small venules through which they reach the liver by way of the portal system, and produce the amebic abscess. The amebic abscess is not truly an abscess but rather a liquefactive necrosis of the liver. It produces the so-called "anchovy sauce" rather than pus, frequency of stools, and a smaller

degree of tenesmus than that of bacillary dysentery. The diagnosis may be readily determined by obtaining the active form of amebae from the base of the ragged ulcers. Attention has been called to the occasional presence of amebiasis with carcinoma of the rectum.

Still another cause of rectal bleeding is chronic ulcerative colitis, with the chief symptoms being the passage of mucus, pus and blood. Examination reveals a rather rigid, fixed bowel, and a very red, granular mucosa which bleeds easily on the slightest touch with a cotton applicator. Chronic ulcerative colitis is confined largely to the rectum and colon, either involving a part or all of the colon. These ulcers are covered with mucus and are usually confined to the mucosa. They are usually superficial; but occasionally the bowel will become involved as deep as the serosa. Therefore, the utmost care is required when sigmoidoscopy is done. Psuedo polyps may be found here, and, as previously mentioned, they are potentially cancerous.

Ulcerative tuberculosis of the bowel, although not often seen, is still important. It is usually secondary to tuberculosis in some other part of the body.

The method in infection has been described as follows: A massive dose of bacilli is swallowed and the organisms pass into the tubular glands of the intestinal mucosa, where an inflammatory exudate is produced in the depth of the gland. The bacilli are then carried through the epithelial lining by phagocytic cells, and thus reach the submucosa where they give rise to the usual tuberculous lesions. The overlying mucosa is then cast off with the formation of an ulcer, or it may remain intact so that the bowel may be tuberculous, although not an ulcer can be seen. The bacilli may be carried from the submucosal lesion to the mesenteric lymph nodes which drain that segment of the bowel, and there produce caseous lesions. Mesenteric lymph node tuberculosis indicates intestinal tuberculosis, but not necessarily intestinal ulceration. The local signs are diarrhea, and pus and blood in the stools. Hyperplastic tuberculosis of the large intestine should be mentioned for completeness; however, it seldom causes rectal bleeding.

Uremia at times is accompanied by a severe diarrhea, especially in the terminal stage, with large amounts of blood, mucus and pus in the stools. Sigmoidoscopic examination of the colon reveals a reddened and ulcerated mucosa. This is due to the saturation of the tissues with urea.

Cholera, another cause of rectal bleeding, is often seen in the latent case. This condition occurs mainly in tropical countries. It is a localized infection and is characterized by the passage of large watery stools. Contrary to the usual picture of dysentery, there is no evidence of ulceration but rather a shedding of the epithelium so that the raw surface is left, from which bleeding occurs.

Other less frequent causes of rectal bleeding are: (1) diverticulitis; (2) large doses of bichloride of mercury or arsenic; (3) lymphopathia venereum; (4) arteriosclerosis; (5) syphilis; (6) hemangioma; (7) prolapse of rectum; (8) actinomycosis; (9) intussusception; (10) foreign body; (11) Meckel's diverticulum.

Diverticulitis may produce rectal bleeding in the presence of a severe diarrhea.

Large doses of bichloride of mercury may produce ulceration of the bowel, followed by bleeding.

Lymphopathia venereum, often called the fourth venereal disease, is seen primarily in the Negro female. This disease ultimately produces a rectal stricture about one and one-half to two inches above the dentate line. Each bowel movement is accompanied by blood, mucus and pus. Lymphopathia venereum, to be differentiated from carcinoma and other inflammatory lesions, requires both digital and endoscopic examinations.

Arteriosclerosis is occasionally responsible for a painless, symptomless bleeding.

Syphilitic gummas are exceedingly rare but do occur and produce rectal bleeding.

Hemangioma may be present on either the large or small bowel, causing bleeding in which the blood is thoroughly mixed with the stools.

Prolapse of the rectum may result in bleeding should it become traumatized.

Actinomycosis, though exceedingly rare, may be found in the cecum and gives a similar feeling on palpation to carcinoma of the cecum. This mass may become ulcerative and produce rectal bleeding.

Intussusception, which is rare and most often seen in children, is the telescoping of the small bowel into the cecum or the large bowel into itself. Occasionally in the presence of a polyp the large bowel becomes irritable, so that hyperperistalsis occurs and produces intussusception. Three signs often seen in establishing a diagnosis are rectal bleeding, severe paroxysmal intestinal pain, and a mass in the right lower abdomen. X-ray study is helpful, and many times the barium enema will reduce the telescoped portion of bowel during the process of the roentgen examination.

The incidence of Meckel's diverticulum is about 1.5 per cent, 15 per cent of which have present a heterotopic gastric and pancreatic

tissue. This heterotopic tissue may ulcerate in a way similar to that of a gastric ulcer and cause a large hemorrhage. Any acute abdominal pain followed by shock and the passage of a large amount of blood from the rectum should cause the physician to consider Meckel's diverticulum.

SUMMARY

1. The importance of a careful history and adequate physical examination in cases of rectal bleeding is emphasized.

2. The etiology of rectal bleeding is discussed.

3. The importance of early diagnosis is stressed.

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ABSTRACT OF DISCUSSION

Dr. J. Wade Harris, Houston: I have enjoyed reading and hearing Dr. Baldwin's paper.

There are many causes of rectal bleeding as he has mentioned; some of these are rarely seen, others are encountered every day. Bleeding from the rectum indicates that there has been a break in the mucosa somewhere along the gastro-intestinal tract, anywhere from the esophagus to the skin at the anal verge, this break in the mucosa and opening of a blood vessel allowing the blood to pass into the lumen. Our problem is to find the pathologic lesion which produced the bleeding; many times this is none too easy. Frequently, there is an anorectal pathologic condition and when it is very evident that the bleeding is coming from that area, we find pathologic changes higher in the colon. No anorectal surgery should be done until a proctoscopic examination has been made.

Of the many causes of rectal bleeding mentioned, a large percentage can be diagnosed by proctoscopic examination. Most of the cases of chronic ulcerative colitis, multiple polyposis, about 60 per cent or more of all carcinomas of the colon, a large percentage of cases of ulcerative tuberculosis of the intestinal tract, and all of the anorectal lesions can be diagnosed by this method. The remainder can be diagnosed with the aid of the x-ray and laboratory procedures.

Rectal bleeding is one of the earliest signs of carcinoma of the colon and only by completely examining a patient with this symptom will we be able to diagnose these early, and only by early diagnosis and surgery will we be able to increase our five-year cures of this disease.

Bleeding from the rectum is a danger signal, and if the pathologic lesion is not definite and found solely in the anorectal area, then the patient deserves every diagnostic means at hand to determine the cause of the bleeding. When other symptoms occur and become evident, it may be late in the disease.

Dr. George M. Underwood, Dallas: The papers by Drs. Patterson and Baldwin have been well presented, and I feel are of great interest to this section. The underlying reason for presenting these papers has been to revive, in a most practical way, a certain cancer consciousness.

A recent report from the Bureau of Census indicated that of all cancer deaths in the United States, 46 per cent originated in the gastro-intestinal tract. It is believed that cancer of the esophagus, if accurately diagnosed, would represent approximately 4 per cent instead of 1.8 per cent.

Bleeding from the rectum is one of the most commonly encountered symptoms in the practice of medicine, and one which is frequently inadequately evaluated. It should be our duty as physicians to initiate such investigation as will recognize any malignant lesion which may be present, or prove that no malignant or premalignant lesion is present in the patient's gastro-intestinal tract.

THE TREATMENT OF INFECTIOUS ENTERITIS OF THE NEWBORN

With Particular Reference to the Use of a Continuous Drip Coupled with Plasma.

ALLAN BLOXSOM, M. D.
HOUSTON, TEXAS

Endemic diarrheas of the newborn have occurred in nurseries in different communities at times in spite of the number of effective measures that have been instituted for the prevention of these outbreaks. The tragedy and economic loss accompanying these endemics carries an obligation of careful study and reporting of the different hospital endemics in an effort to prevent not only future infections but to treat better the current infection. The mortality in infectious enteritis of the newborn approaches 50 per cent,[3] depending upon the causative organism.

A recent outbreak of enteritis in the nurseries of the hospitals of Houston occurred in the late summer of 1943. The first case appeared in August, and the infection reached its height during the last week of August and the first week of September. The start of the infection occurred in the prematurity nursery of one hospital and shortly appeared in all the hospitals, the largest number of cases appearing in the hospital having the greatest number of deliveries. Several of the infants developed the infection upon arrival at home and were re-admitted to the

TABLE 1.

Month	No. Deliveries	No. Cases Enteritis	Percentage	Died	Percentage
Aug. 1943	435	24	5.5	12	50%
Sept. 1943	520	12	2.3	1	8.3%
Oct. 1943	493	8	1.6	1	12.5%
Nov. 1943	468	9	1.9	3	33%

From the Department of Pediatrics, College of Medicine, Baylor University, Houston, Texas.

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hospital, and the present report includes these babies.

The majority of the deaths occurred two to three days after the onset of the infection, thus testifying to its virulence. The endemic first started in the premature nursery of one hospital and rapidly spread through all the nurseries on the different floors. The high percentage of deaths in August was caused by the large number of premature infants developing this infection. It was characterized by a rather sudden onset, with violent and squirty, pea green stools, leading to an extremely rapid dehydration and acidosis. In a period of a few hours the infant became critically ill, his skin becoming doughy and ashen. The sunken eyeballs, depressed fontanel and red, dry mucous membranes were seen frequently. The loss of weight was great, the infant losing six to eight ounces frequently in a few hours. There was no blood in the stools and the stools were all characterized by being pea green in color and squirting violently from the infant. The fact that the infection occurred in all the hospitals in Houston about the same time suggested that it might have been carried by an attending physician, rather than by parents, nurses or a break in the technique in the formula room.

As a rule there was little elevation of temperature, and the blood count showed a leucopenia. The hemoglobin rose in one instance to 133 per cent, with 6,000,000 red blood cells. Death occurred in 17 of the 53 infants developing the enteritis during the four-month period of August through November 1943, a percentage of 32 per cent.

Cultures of the infant's stools were made in 18 cases and salmonella found in 5 instances; in 1 case the infectious agent was paratyphoid B, and in 4 cases, Salmonella Hirschfeldi. No other pathogenic organisms were isolated consistently from the stools.

Treatment by the various physicians on the staff consisted in isolation of the infected infant, the giving of subcutaneous fluids in the majority of cases, transfusions, and either sulfaguanidine or sulfasuxidine by mouth. Sulfaguanidine was given in the majority of cases. The formula for most cases consisted of protein milk. Later a continuous drip of Hartman's solution, together with plasma at regular intervals, was tried. The results of all forms of therapy used are shown in table 2.

TABLE 2.

Type of Therapy	No. Cases	Died	Percentage
Subcut. fluids only	8	7	87.5%
Subcut. fluids, Sulfaguan	23	6	26.1%
Subcut. fluids, Sulfasuxid	12	2	16.7%
Intravenous drip	5	2	40%
Intravenous drip, plasma (With 3 intravenous sulfadiazine)	9	0	0

The dramatic response of the infants given intravenous drip with Hartman's solution, coupled with plasma started eight hours later and continued at regular intervals, provides the basis of this report of that method of treatment. The intravenous fluid used was Hartman's solution with 5 per cent glucose; it was given in the internal saphenous vein at the ankle, 6 to 8 drops per minute. The plasma used was a dried commercial preparation, recombined with sterile water before use. It was given in 40 to 50 cc. amounts at eight hour intervals over a period of twenty-four to forty-eight hours. A typical case report follows:

CASE REPORT

W. A. H., a white male, age 19 days, was admitted to the hospital twelve days after discharge from the obstetrical service. The mother stated that when the infant was seven days of age she left the hospital and noticed that the baby was having very frequent stools, pea green in color. The weight at birth was 6 pounds, 14 ounces.

Both the mother and father are living and well, and neither had a diarrhea or gastro-intestinal upset either before or after the birth of the infant. The infant lives in a small community, some 65 miles southwest of Houston.

Four days before admission the mother noticed that the child was spitting up. He gradually became worse and on the day of admission became very listless, with the fontanel being markedly depressed. The skin was pale and could be picked up. The abdomen was distended and the child was acutely ill and almost moribund. The admission diagnosis was acute infectious enteritis with an adynamic ileus.

The hemoglobin was 133 per cent, 6,000,000 red blood cells with 15,800 white blood cells, 48 per cent being polynuclear neutrophiles, and 52 per cent small lymphocytes. The urine was yellow, cloudy, acid with one pus albumin, and the microscopic examination showed many coarsely granular and hyaline casts.

Upon admission the infant was cyanotic; the temperature was 98.8 F. A canula was at once inserted into the internal saphenous vein at the level of the ankle, and a continuous drip started of Hartman's solution with 5 per cent glucose at 6 drops to the minute. After twelve hours, 50 cc. of plasma was given every twelve hours for three doses. The change in the infant was remarkable. From being listless, cyanotic and almost moribund, he changed to a vigorous baby with a good appetite. This infant also received sulfadiazine intravenously for two days. The intravenous fluids were continued for two days, and then fluids were given exclusively by mouth.

A high sugar, low fat formula was given, and after five days the infant's hemoglobin reached 100 per cent with 5,860,000 red blood cells and 12,090 white blood cells. The stools changed to a soft yellow. On the seventh day after admission the infant was discharged from the hospital. He has continued to do well, and at the present time weighs above twelve pounds.

The dietary management consisted of an initial period of starvation for twelve hours, followed by the use of either protein milk, a powdered milk, or a sweetened condensed

milk, the infant's preference being followed more or less in selecting his formula. Vitamins were added early.

DISCUSSION

It is better to prevent an endemic diarrhea of the newborn, but when this type of infection does occur in spite of all known preventable means, then an effective therapeutic procedure is most desirable. The economic loss occasioned by the death of one newborn has been set at $9,000 and the death of 17 thus represents a loss of $153,000 to the community.[4]

The number of newborn infants with an infectious enteritis in the summer of 1943 who responded well to an intravenous drip combined later with plasma at regular intervals, justifies the opinion that this procedure warrants further trial and in a larger number of infants.

The giving of plasma has all the advantages of whole blood without the disadvantage of increasing the hemo-concentration seen in a number of these infants. This hemo-concentration reached a level of 133 per cent with 6,000,000 red blood cells in one infant.

In addition the plasma supplies a source of protein that is of value in stabilizing the fluids of the body at a period when such protein is of vital use. It has been recognized that the newborn infant, particularly the premature infant, has a low average value of serum protein.[1, 2] Nicholas and I found this to be true also in a small series of infants studied several summers ago. The results of this study are revealed in table 3.

TABLE 3.

Case	Serum Albumin	Serum Globulin	Total Protein
1	3.0	1.4	4.4
2	3-1	1.3	4.4
3	3.7	1.8	5.3
4	3.7	1.6	5.3
5	3.7	1.8	5.5
6	3.2	1.6	4.8
7	3.7	1.5	5.2
8	3.5	1.3	4.8
9	3.3	1.3	4.6
10	3.5	1.1	4.6
11	3.5	1.8	5.3
12	3.6	1.8	5.4
13	3.5	1.6	5.1
14	3.7	1.4	5.1
15	3.2	1.3	4.5
16	3.6	1.9	5.5
17	4.0	2.3	6.3
18	3.7	2.0	5.7
19	3.2	1.3	4.5
20	3.6	1.5	5.1
21	4.0	1.2	5.2
8 infants (38%) with total protein less than 5%			

It is possible, therefore, that the plasma given these newborn infants in a certain number of instances supplied needed protein to stabilize that infant's fluids at a time when serum protein was needed. Furthermore, the plasma contains immune substances that in a suitable instance, depending on the infection, supply active therapeutic properties. And, as noted before, the plasma does not increase the hemo-concentration when such a concentration would be most undesirable.

SUMMARY

Nine infants who developed an infectious enteritis in a recent endemic in a newborn nursery were given an intravenous drip coupled later with plasma at regular intervals and showed such a gratifying clinical response that it is believed this method of treatment warrants a further trial.

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ABSTRACT OF DISCUSSION

Dr. H. Leslie Moore, Dallas: Dr. Bloxsom has given as an extremely interesting and instructive resume of this very fatal disease. It is becoming more common and will undoubtedly increase due to bad technique in the newborn nursery because of war conditions. Notwithstanding the perfect results from the plasma treatment, a larger number of cases must be treated, especially in the early part of the epidemic which is usually more severe.

I recommend that all maternity hospitals be prepared to institute this treatment as soon as the earliest symptoms appear. Plasma has a three-fold action: (1) It combats dehydration by sustaining plasma protein level. (2) Plasma proteins are complete protein for nutritional purposes. (3) Plasma combats infection in two ways, first, as Whipple has shown, the production of antibodies is dependent in part on adequate store in the reticulo-endothelial system; and second, human plasma as pooled plasma has many globulin fractions.

PENICILLIN AIDS CLOSURE OF BEDSORES

Successful closure of bedsores was carried out with the aid of penicillin administered by injection and locally, Lieutenant Colonel John D. Lamon, Jr., and Captain Eben Alexander, Jr., Medical Corps, Army of the United States, reports in the February 17 issue of *The Journal of the American Medical Association.* The wounds were closed with sutures of cotton.

They say that much has been published concerning the care and healing of bedsores in recent years, but, as far as they can determine, no reports of the successful closure of these sores have so far appeared in the literature.

The case they describe was that of a soldier with three bedsores on his back, all of them infected. To speed the healing of the sores so that a necessary operation could be done on his spine near one of them, penicillin was injected into a muscle for twenty-four hours. Then the sores were carefully excised, penicillin injected into the tissues around each wound and they were closed with sutures. Ten days later the sutures were removed from the wounds which remained clean and free of infection. The operation on the spine was done three weeks after closure of the bedsores.

CLINICAL OBSERVATIONS ON THE ETIOLOGY OF DIABETES INSIPIDUS

GEORGE M. JONES, M. A., M. D.
DALLAS, TEXAS

Although diabetes insipidus is relatively seldom seen as compared with other types of illness treated by pediatricians, nevertheless it should be a subject of interest to them because of the high percentage of such cases that have their onset during childhood. For this reason the present subject has been chosen for discussion. In order to have an understanding of the clinical aspects of this symptom complex, one must have some knowledge of the experimental work done.

It has truly been said that the history of diabetes insipidus reads like a comedy of experimental errors.[6] Out of the apparently conflicting experimental data there arose two schools of thought about the etiology of diabetes insipidus. In 1913 von den Velden[14] and Farini[4] independently showed that in humans with this symptom complex, posterior pituitary extracts had an antidiuretic effect. Just as it was being accepted that diabetes insipidus resulted from deficiency of the posterior pituitary, Camus and Roussy[2] demonstrated that basal lesions of the hypothalamus, which did not directly damage the hypophysis, could cause this disturbance. It was also noticed that total hypophysectomy did not increase the fluid exchange. The opposing views of those who believed diabetes insipidus resulted from hypothalamic injury and of those who thought it was caused by posterior pituitary damage were not reconciled until the excellent experimental work by Fisher, Ingram, Ranson, and associates[6] showed that there exists a hypothalamico-hypophyseal system with an included supra-optico-hypophyseal tract that works as a functional unit, injury to any part of which may result in diabetes insipidus. Moreover, just as the pars nervosa has an antidiuretic effect, the pars anterior has a diuretic effect. Therefore, diabetes insipidus may be considered a result of an uncompensated activity of the pars anterior, unchecked by the antidiuretic hormone of the pars nervosa.[9]

Although it is well known that the anterior pituitary has a diuretic effect, there is considerable difference of opinion as to how this effect is exerted. Crowe, Cushing, and Homans[3] found that in totally hypophysectomized dogs, diabetes insipidus did not develop until the pars anterior was transplanted into these same dogs, the polydipsia and polyuria disappearing when the transplant was removed. Gersh[7] lists three possible ways in which the anterior pituitary may have a diuretic effect: (1) by maintaining general metabolism and activity at such a level that water exchange is kept at normal levels; (2) by the more specific thyrotropic factor which stimulates the thyroid and thus influences metabolism and water exchange; and (3) by a specific diuretic principle, which is not the thyrotropic principle but which is ineffective in the absence of the secretion of the thyroid, being synergistic with the thyroid. More recently, the possibility has been suggested that the diuretic effect of the anterior pituitary may be exerted through its adrenotropic factor, as it has been shown that a syndrome simulating diabetes insipidus has been produced by the use of desoxycorticosterone acetate.[11]

CHART 1.—*Causes of Diabetes Insipidus in Cases Considered in this Report.*[10]

	Number of Cases	Percentage
Tumor of the pituitary	11	26%
Tumor of the hypothalamus	2	5%
Hand-Schuller-Christian disease	4	10%
Chronic encephalitis	7	16.6%
Syphilis	3	7%
Post-traumatic head injury	3	7%
? Pituitary infarction	1	2.4%
Cerebrovascular accident	1	2.4%
Subarachnoid hemorrhage	1	2.4%
Hypothalamic damage, ? etiology	1	2.4%
Undetermined etiology	8	19%
Total	42	100%

The antidiuretic role of the pars nervosa is better understood. All the evidence is well in favor of the hormonal nature of the antidiuretic substance. This substance has been isolated from the urine of normal animals but not from the urine of animals with diabetes insipidus.[8] It is physiologically and chemically similar to pituitrin. Evidence indicates that the antidiuretic hormone acts directly on the renal tubules with stimulation of these cells to reabsorb more water from the lumen of the tubule, leading to retention of body water and a reduction in the flow of urine.[6, 7, 12] Therefore, in the absence of this hormone in diabetes insipidus the polyuria is primary to the polydipsia. The inability to concentrate urine is characteristic of patients with diabetes insipidus. It has been shown in animals with diabetes insipidus that there is an immense increase in diuresis following increased salt intake,[13] but it has also been shown that diabetes insipidus is not primarily a disturbance in sodium chloride metabolism.[16]

With these facts in mind, a study was made at the University of Michigan in an attempt to correlate these experimental findings with clinical cases of diabetes insipidus.[10] Forty-two satisfactorily diagnosed cases were seen in the interval between January, 1926, and January, 1943. An attempt

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was made to determine the etiology of the diabetes insipidus in each case. The results are shown in Chart 1. Thus, the most common cause of the diabetes in this group of cases was a pituitary tumor; the second most common cause in the entire group being chronic encephalitis. The various etiologi-

CHART 2.—*Ages at Time of Onset of Diabetes Insipidus in Cases Considered.*[10]

Age Group (Years)	Number of Cases	Percentage
0—10	17	40%
10—20	6	14%
20—30	7	17%
30—40	5	12%
40—50	5	12%
50—	2	5%
Total	42	100%

Average age at onset, 21 years.

cal factors amply demonstrate that diabetes insipidus is not a disease *per se*, but a symptom complex possibly due to many different factors, the prognosis and treatment in any individual case depending upon the etiology. The relatively early average age of onset of diabetes insipidus is shown in Chart 2. Thus, 40 per cent of the cases had their onset by the age of 10 years, and the average age at onset of the entire group was 21 years. The average age of onset in the 4 cases caused by Hand-Schuller-Christian disease or xanthomatosis was 2 years. Of the group of 42 cases of diabetes insipidus studied, 20 patients had their onset by the age of 15 years or younger. Causes of the diabetes insipidus in these cases are seen in Chart 3. Thus, in this group of cases cystic adamantinoma and xanthomatosis were the most common etiologic factors, and tumor of the pituitary, either primary or secondary was the cause in 35 per cent of the cases. Of the entire group of cases, postmortem examination was done on only 2 patients, revealing in each case carcinomatous destruction of the supraopticohypophyseal tracts, there being some normal anterior pituitary substance remaining in each case.[10] Diagnoses in the remaining cases were, in some instances, proven by microscopic examination of tissue; in other cases by findings during osteoplastic craniotomies; in others by x-ray or other laboratory procedure, and in all by careful history and physical examination findings. Results of these clinical studies confirm the results of experimental work on the etiology of diabetes insipidus.

Several interesting observations in this group of cases should be mentioned. In every case in which a urine concentration test was done, the patient was unable to concentrate urine. This should be a prerequisite to the accurate diagnosis of diabetes insipidus. Polyuria in one patient was so great that he lost 12 pounds in body weight while on a twelve-hour urine concentration test. In the case of one child, his parents noticed that if they tried to limit his liquid intake to two quarts daily he drank his own urine. One patient placed on a low salt diet had a definite decrease in the degree of polyuria, although he continued to need pitressin. Two patients with clinical evidence of hypothyroid function and with low basal metabolic rate determinations nevertheless had diabetes insipidus. In some cases the onset of the diabetes insipidus preceded by quite some time the evidence that led to an etiological diagnosis, in one case other evidence of neoplasm not appearing until six years after the onset of polydipsia and polyuria.

CHART 3.—*Causes of Diabetes Insipidus in Cases with Onset by Age of Fifteen Years or Younger.*

	Number of Cases		Percentage	
Tumor of Pituitary				
Cystic Adamantinoma	4		20	
Round Cell Sarcoma, Ewing's tumor	1		5	
Lymphosarcoma of large round cell type	1	7	5	35%
Fibroma of right antrum with sarcomatous changes	1		5	
Hypothalamic tumor	1		5%	
Hand-Schuller-Christian disease (xanthomatosis)	4		20%	
Chronic encephalitis	1		5%	
Post-traumatic head injury	3		15%	
Undetermined etiology	4		20%	
Total	20		100%	

Fink[5] analyzed 107 postmortem examination reports in human cases of diabetes insipidus and found that 63 per cent had tumors about the base of the brain or posterior cranial fossa; 13 per cent were due to syphilitic processes, either basal meningitis or gummas in or near the hypophysis; in 6 per cent the lesion was a tuberculoma or tuberculous meningitis of the base of the brain; 8 per cent had non-syphilitic inflammatory processes in the same location; and 10 per cent were due to traumatic injuries. Warkany and Mitchell,[15] in listing the causes for diabetes insipidus in children, include idiopathic or hereditary factors, trauma, encephalitis, tuberculosis, syphilis, xanthomatosis, tumors, and other rare and unclassified factors. Diabetes insipidus has been reported caused by metastases in generalized carcinomatosis, medulloblastoma, Ewing's tumor, round cell sarcoma, lymphoblastoma, carcinoma of the breast, bronchogenic carcinoma, primary carcinoma of the lung, hypernephroma, and carcinoma of the stomach.[1, 10] In every case of diabetes insipidus, in order to aid prognosis and treat the patient properly, a very careful attempt should be made to determine the etiologic factor in the individual case involved. Thus, Hand-Schuller-Christian disease and certain types of neoplasm respond to x-ray therapy, and syphilis

responds to antisyphilitic therapy. Where the etiologic factor is not amenable to specific therapy, substitution therapy is necessary.

CONCLUSIONS

Diabetes insipidus is a symptom complex, not an etiologic diagnosis. The importance of thorough and repeated examinations to determine the etiology in any case of diabetes insipidus is emphasized. In any case in which organic damage to the supraoptico-hypophyseal tract is suspected the patient should be placed on a urine concentration test in order to confirm the diagnosis. In this small group of cases neoplasm and xanthomatosis were the most common etiologic factors in children.

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ABSTRACT OF DISCUSSION

Dr. John G. Young, Dallas: It is interesting that an internist should call our attention to a problem with many pediatric aspects and at times entirely pediatric in nature.

Diabetes insipidus is really a symptom complex without a definite pathological etiology. The posterior pituitary has a definite antidiuretic effect. It is complex but interesting to know that injury to any part of the hypothalamico-hypophyseal region of the supraoptico-hypophyseal tract may result in diabetes insipidus.

We have known for a long time pars nervosa has an antidiuretic effect and pars anterior, a diuretic effect. I think the work done on transplants of the pars anterior and later the removal of these transplants with the resulting cause and effect phenomenon would, on the surface, appear to be a very simple explanation of the condition, but we must realize that this is only one of the mechanisms playing a part in this disease. As the pars-nervosa is hormonal, its absence makes polyuria primary to polydipsia. We all should remember that the inability to concentrate urine is the characteristic of this disease. Because patients in 40 per cent of the cases are under 10 years of age and some of the etiological factors are seen in our age group, it is necessary for us to attempt prompt diagnosis so that we may aid in removing the cause, and give a more accurate prognosis. It must be remembered that some of these causes, as syphilis and some of the tumors, are amenable to treatment and if we recognize the causative factor and find it impossible of removal we may use substitution therapy with good effect.

Dr. Arild E. Hansen, Galveston: Dr. Jones' paper on diabetes insipidus was most instructive and informative. It was rather surprising to me that cases of essential xanthomatosis (Hand-Schüler-Christian Disease) constituted such a relatively large portion of the children with diabetes insipidus studied. In how many instances did the author find that the polyuria and polydypsia antedated the other evidences of essential xanthomatosis in these patients?

IRRADIATION IN CARCINOMA OF THE BREAST

ROY G. GILES, M. D., F. A. C. R.
SAN ANTONIO, TEXAS

The evaluation of accurate therapy in carcinoma of the breast should take into account the natural course of the disease. Nathanson and Welch report a natural survival for untreated breast cancer of 40 per cent at three years, 20 per cent at five years, and 5 per cent at ten years, from the onset of symptoms. It should be remembered that end results bear a direct relation to the extent of the disease at the time of operation, the degree of malignancy, the histologic interpretation and any supplemental measure such as irradiation. It should be adequately emphasized that five year survivals with disease is quite different from five year cures with no demonstrable disease. The adoption of a uniform clinico-pathological classification should prove more applicable and equitable as well as explain the indications and limitations of different methods of treatment than the present classification based on clinical or histologic criteria. The clinico-pathological classification of mammary carcinoma suggested by Portman is a great step forward in the right direction.

Group or Stage 1 (Portman)
- Tumor—Localized in the breast and movable.
- Skin—Not involved.
- Metastases—None in axillary nodes or elsewhere.

Group or Stage 2
- Tumor—Localized in breast and movable.
- Skin—Not involved or slightly edematous or ulcerated over tumor.
- Metastases—Few axillary nodes involved. No other metastases.

Group or Stage 3
- Tumor—Diffusely infiltrating, breast fixation of tumor or breast to chest wall, edema of breast and secondary tumors.

Read before the Section on Radiology and Physiotherapy, State Medical Association of Texas, San Antonio, May 3, 1944.

Skin—Edematous, brawny induration and inflammatory, extensive ulceration and multiple secondary nodules.
Metastases—Many axillary nodes involved or fixed. No clinical or roentgenological evidence of distance metastases.

Group or Stage 4
Tumor—As of any other stage.
Skin—As of any other stage.
Metastases—Axillary and supraclavicular nodes involved. Clinical or roentgenological evidence of distance metastases.

Mammary carcinoma is a localized disease in the beginning but remains confined to the breast for a comparatively short period when it invades other tissues by transmission through the lymph stream, and occasionally through the blood stream, becoming a disease of the patient, and then we must treat the patient as well as the malignant disease. Patients with mammary carcinoma seldom die of their local disease, whether primary or recurrent; death is usually due to visceral or distant metastases.

This paper is based on a study of 191 cases of malignacy of the breast of all types. Sixty-three cases, or 33 per cent, were inoperable, leaving 128 cases, or 67 per cent, considered operable when first seeking medical care. Seventy-four, or 60 per cent, of the 122 cases in which microscopic study was available showed involvement of the axillary lymph nodes. Harrington found the average number of cases with lymph nodal involvement reporting to the Mayo Clinic (1910-1930) was 64.2 per cent. Lynham of London reports that 75 to 90 per cent of breast cancer patients reported to the doctor for the first time with skin involvement, adhesions to the muscles, glandular involvement or more widespread metastasis. These figures indicate that a large number of patients are being seen too late in the course of the disease to expect the best results from any type of treatment. The great problem today, therefore, is not how to employ surgery or how to employ irradiation therapy but how to get the patient who needs this help in time to those qualified to give it. As a general rule the patient is safest in the hands of the physician or institution qualified to give the benefit of expert administration of both irradiation therapy and radical excisional surgery. Opinions differ among surgeons as to what constitutes operability. Clearly operable cases of mammary carcinoma are those in which the cancerous tissue has not extended beyond the area that can be excised. Many cases which fail to show local recurrences show metastases in distant regions. The extent of the operation cannot influence the final result, regardless of how well performed, when the metastases were formed before the operation. Routine x-ray examination of the spine, pelvis and chest, therefore, should be made in every case before deciding upon suitable treatment.

Radical surgical excision of the breast was inaugurated in 1894 and has remained the recognized treatment for the past half a century. Success in recent years since surgical technique has been perfected, is not much higher than forty years ago.

The most important factor influencing prognosis in carcinoma of the breast is involvement of the axillary lymph nodes. Patients may survive with cancers considered to be highly malignant from the histological viewpoint, while others will succumb with a seemingly low degree of malignancy. The prognosis depends upon the histological grade of malignancy as well as the anatomic extent of involvement and whether or not the cancer is completely eradicated. When the axillary nodes are involved the average five year cure rate is given as 22 to 23 per cent. The five year clinical cure rate is about three times as high in those with the disease limited to the breast as in those with extension to axillary lymph nodes. The degree of axillary involvement, however, is most important. Naturally the prognosis is much better when only a few of the axillary lymph nodes are involved than when the metastases have extended to many axillary lymph nodes and these glands are fixed in the axilla, and in both instances when there is no clinical or x-ray evidence of distant metastases.

Axillary node involvement cannot be detected clinically with certainty but requires operation with microscopic study. Harrington showed that 32 per cent of all patients with enlarged axillary lymph nodes had no cancer within the axilla histologically, while 29 per cent of those without clinically palpable nodes nevertheless had microscopic evilence of axillary lymph node metastases. Such cases are on the border line between surgically "curable" and surgically "incurable." Portman and others have found that this type of case has few local recurrences, and about 50 per cent of the patients survive five years clinically free from cancer and when postoperative irradiation was added the percentage of five year survivals free from cancer rose to 65 per cent, indicating that the treatment was beneficial. When the axillary lymph nodes are involved, it is impossible to be sure whether the disease is limited to, or has extended beyond the axillary lymph nodes. For this reason it seems safest to administer postoperative irradiation routinely.

Pack and Livingston state, "There can be little doubt, however, that among most special cancer clinics of the present a virtually

complete routine application of postoperative external radiation is favored despite the discouraging statistical measurements of past end-results and any negative theoretical consideration."

Irradiation as well as radical surgical excision of the breast will cure a very small percentage of the patients in the advanced stages of axillary involvement; for example, when the tumor infiltrates the breast and is accompanied by fixation of tumor to breast or chest wall by metastases to many lymph nodes, some of which may be fixed, even though there is no clinical or x-ray evidence of pulmonary or skeletal metastases. These advanced cases soon or later develop distant and visceral metastases, because extension has taken place beyond the axillary lymph nodes and the anatomic limits of surgical removal. Technically speaking, all cancers of the breast are "operable" but the literature contains an abundance of proof that a large number of breast cancers are "surgically incurable" when first seen by the physician. The extent of the operation cannot influence the final outcome of the disease when it has metastasized beyond the axillary lymph nodes, no matter how well performed. Portman states that the five year survival rate in this type of case is 5 per cent with surgery alone, and 15 per cent with the addition of postoperative irradiation.

Radical surgery is only curative for breast cancers which can be completely excised; hence, radical mastectomy has little or no place in the case with extensive axillary involvement with or without visceral, skeletal and pulmonary metastases. Since surgery nor irradiation will cure many of the advanced cases of mammary carcinoma ("surgically incurable") the aim of treatment should be entirely palliative. Radical irradiation is the treatment of choice. In many of these cases irradiation therapy will be successful in bringing about growth restraint, tumor regression, and even effective sterilization of certain advanced breast tumors, prolonging life and promoting economic usefulness.

Local Recurrences After Mastectomy.—Local recurrences in the skin or chest wall are one of the major problems of cancer of the breast. White, Roosevelt Hospital, New York, reports 37 per cent local recurrence after radical amputation for breast. Haagenson and Stout, Presbyterian Hospital, New York, analyze 1,040 cases of cancer of the breast and report an incidence of local recurrence of 22.8 per cent within five years. Intensive low filtered x-radiation is the treatment of choice. Many of these patients have been controlled satisfactorily by this type of treatment, for one to several years. In one case the small indurated metastatic skin nodules were held in check (early nodule confirmed by microscopic examination) for seven years by periodic intensive low filtered irradiation.

Extension and Attachment to Chest Wall.—There is little chance for more than palliation in those cases showing extension to the supraclavicular, infraclavicular, or parasternal lymph nodes. The chief aim of irradiation in these cases is to create a comfortable and, as far as possible, a useful life. With intensive heavily filtered high voltage fractional irradiation therapy we have seen these glands definitely diminish in size. In addition, irradiation therapy frequently lessens pain and distress, retards metastatic growths and destroys superficial recurrences.

Generalized Metastases.—Mammary cancer metastasizes most frequently to the bones, lungs and viscera. The pelvis, spine, mediastinum and lungs should always have an x-ray examination in search for metastases before outlining suitable treatment.

Visceral Metastases.—Secondary involvement of the upper half of the abdominal cavity, including the liver, occurs as a general rule late in the course of the disease, and the patient is in such a grave condition that he is usually quite miserable and nauseated. These cases are not infrequently secondary to an extensive local recurrence and accompanied by cancerous involvement of the bones and lungs. Lenz found bone metastases in 87 of the 168 cases of mammary cancer studied and noted that 68 per cent were associated with metastases to other regions. Irradiation of the upper abdomen including liver metastases is unsatisfactory, and little or nothing is to be expected from such treatment.

Pulmonary Metastases.—There are several types of metastases to lungs from breast cancer:

Metastases to the tracheobronchial lymph nodes appear at the hilum and in the upper mediastinum. There were 5 cases classified this type by the author, in a series of 48 cases of breast cancer.

Parenchymal metastases are of four types:

(a) Nodular—small or large sharply defined nodules, may be scattered anywhere in the lung fields but are most prevalent in the bases. There were 12 cases in a series of 48 cases of breast cancer, classified as this type by the author.

(b) Infiltrative type, in which there is a radial increase in the markings arising at the lung root, and these markings are prolonged into the

parenchyma. Mottling may occur. In a series of 48 cases of pulmonary metastases following breast cancer, 5 cases were of this type.

(c) Miliary type, which is similar to the nodular but the masses are smaller and more evenly distributed. In a series of 48 cases of pulmonary metastases following breast cancer, only 2 cases were of this type.

(d) Massive type, in which there is consolidation of all or a part of a lobe, often associated with pleural changes. This type is difficult to differentiate from pleural effusion.

Pleural thickening and pleural effusion are difficult to differentiate from consolidation of all or a portion of a lobe. In a series of 48 cases of pulmonary metastases following breast cancer, 9 were classified as this type.

The development and the course of metastasis to the lungs is often quite rapid and may be accompanied by early clinical symptoms indicative of the condition. The life of the patient with pulmonary metastatic malignancy secondary to the breast is usually short and extremely uncomfortable. Irradiation, nevertheless, is worthy of a trial in these cases because these lesions not infrequently show marked benefit and retrogression of the metastases. The author has seen several such cases. One recent case has been under observation for seven years.

Skeletal Metastases.—The frequency of skeletal metastases varies with different authors and seems to depend directly upon the extent to which the mammary cancer has invaded other tissues at the time bone metastases was sought. As an example, Meydering, Carman and Garvin in a study of 1,985 cases of mammary cancer found bone metastases in 67 cases, or 3.4 per cent. In a study of 191 cases by the author, skeletal metastases were discovered in 24 cases, or 12 per cent. When considering the 63 cases classified as "surgically incurable" the percentage was 25 per cent among the 31 cases traced. Lenz found bone metastases in 87 of 168 cases (51.8 per cent) of mammary cancer studied, and noted that 68 per cent were associated with metastases to other regions. Skeletal metastases may continue for a long time without causing destructive areas in the bone that can be detected on a radiogram and the only clinical symptom will be pain too frequently diagnosed as rheumatism without sufficient research for its true cause.

The prognosis of skeletal metastases is always grave but not entirely hopeless. Fractional small doses of roentgen therapy over long periods of time will often relieve pain, sometimes rendering these patients completely able to perform their household duties for months, and in a few instances, years. It is the best method of palliating a hopeless disease. Palliation may be expected in approximately 70 per cent of the cases of bone metastases.

ROENTGEN CASTRATION IN CARCINOMA OF THE BREAST

The available literature supports the general impression that the prognosis in carcinoma of the breast in young women is unfavorable as compared to that in older women. Ewing states, "Before 30 years of age mammary cancer is extremely fatal so that some surgeons prefer not to operate during this period." De Cholnoky gives the incidence of mammary cancer in patients under 20 as 0.09 per cent of the total and patients under 30, 2 per cent of all cancers of the breast. Pack and Livingston found that 17.3 per cent of 2,663 patients with mammary carcinoma were under 40 years of age. They report only 10 per cent of the young women with axillary metastases living and well five years after radical mastectomy among women of unselected ages who had cancers of the same extent. Lee reported 67 per cent of young women with mammary carcinoma having no axillary involvement, alive and well three years following radical operation as compared with 72 per cent living and well five years after radical excision of the breast for women of all ages with cancers of the same extent treated by the same method. The added hazard in breast cancers when associated with pregnancy and lactation is also widely recognized. Lee observed only one patient with coexistent pregnancy and mammary carcinoma, who lived more than five years. Smith studied the effect of pregnancy on malignant tumors in 22 cases from the Memorial Hospital, with the following findings: If pregnancy was interrupted none of the patients lived more than two years but if pregnancy was permitted to continue and the breast was treated in the usual manner, 88 per cent of these women were living two years later. The literature contains ample evidence that pregnancy should not be interrupted after the third month. De Cholnoky is more optimistic; he states, "It is gratifying to know after radical operation, young women may deliver healthy children and because of child-bearing may not develop generalized metastases. If the tumor is a small early growth, without lymph nodes involvement, and if the patient remains well for about three to five years, one may permit pregnancy. But with advanced growth and axillary involvement the prognosis is known to be poor."

During recent years an extensive literature has accumulated stressing the importance of ovarian castration in the treatment of metastatic lesions from mammary carcinoma. As early as 1889 Schinzinger suggested that breast cancer in the young female was more rapid than in the elderly woman. He advocated in these cases surgical removal of the ovaries to produce a functional sterility by the production of a premature menopause. In 1905 Lett collected 99 cases and reported that 36.4 per cent were definitely benefited by bilateral oöphorectomy.

It was not long after the discovery of the x-rays that roentgen castration was substituted for bilateral surgical removal of the ovaries with excellent results.

In 1925 the author reported widespread bone metastases to the skull, spine, pelvis and right femur, in a 30-year-old woman, who in 1921 had had a radical mastectomy with a pathological diagnosis of adenocarcinoma of the breast. She was living and well three years after roentgen irradiation was first given over the pelvis. Definite and striking spontaneous healing of the metastatic areas in the skull, spine and right femur were observed and have since come to attention on different occasions.

Ahlbom, in 1930, reported 163 cases treated at the Radiumhemmet in Stockholm from 1922 to 1928, and he reached the following conclusions: "The material included very few cases in which one has the greatest reason to expect a favorable response, namely, still menstruating women who do not give evidence of any spread of the cancer beyond the first lymphatic station."

Most of the cases in recent years reported as having benefited by roentgen castration are those with skeletal metastases. In most of these advanced cases surgical castration would be considered as contraindicated. As a general rule the cases with local recurrences and visceral metastases show little response to roentgen castration; however, striking benefit is occasionally recorded in the literature. Dresser treated 59 cases from 1929 to 1934 and found that in about one-third of the cases treated before the onset of the menopause, x-ray study showed signs of regression of the bone lesions and reossification in some cases. He found that roentgen rays produced relief of pain in 70 per cent of the cases before the menopause and in about 50 per cent after the menopause.

In the advanced case, spontaneous healing of metastatic areas in the skull and other distant sites has been observed repeatedly as a result of irradiation over the pelvis. Beneficial results have been reported in cases of recurrence of pain following irradiation, as well as in those patients past the menopause. It seems to be the consensus of opinion that the promiscuous prophylactic use of roentgen castration in women before the menopause, will have little or no value in preventing the development of skeletal metastases. Irradiation castration, therefore, should be reserved for selected cases, especially those with cancer of the breast accompanied by axillary or more advanced involvement.

Benefits to be derived from roentgen irradiation in cases of bone metastases may be summed up as follows:

1. Relief of pain in approximately 70 per cent of patients before the menopause.
2. Relief of pain in approximately 50 per cent of patients past the menopause.
3. About 33 per cent of the cases with bone metastases treated before the menopause x-ray investigation show signs of regression of the bone lesions and complete reossification in some cases.
4. Pathological fracture may be prevented.
5. Improvement in the general condition of the patient, and often gain in weight and increased appetite.
6. Marked prolongation of the patient's comfort and usefulness.
7. Frequently marked improvement in patient's mental status, and optimism may replace the patient's feeling of hopelessness.
8. There are no contraindications to ovarian sterilization, and it may be used when there is reasonable hope of benefit.

306 Medical Arts Building.

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ABSTRACT OF DISCUSSION

Lt. Col. Glenn D. Carlson, Brooke General Hospital, Fort Sam Houston: Dr. Giles is to be congratulated on his presentation of the problems confronted in advanced carcinoma of the breast. The fact that 10 per cent of all carcinomas originate in the breast and the fact that the death rate is still apparently rising tend to make this lesion an ever-present medical problem.

Although there is still indecision on the part of men of wide experience as to the acceptable forms of treatment in general, almost all are agreed that irradiation is the only known treatment for recurrent and inoperable breast carcinomas. This stage of disease is a desperate one and requires intensive irradiation.

It is to be re-emphasized that every statistical report in comparing two forms of treatment should show extreme care in the inclusion of all pertinent data and such data should be reduced to a common basis. As Dr. Giles stated, the presence or absence of axillary metastasis causes a marked variability in the percentage of five year survivals. Therefore, a group treated by surgery alone and a group treated by combined surgery and irradiation should show similar percentages of axillary involvement in order to obtain an honest appraisal of results. Adair states that "reports available for study have failed to furnish convincing evidence that irradiation as the sole form of treatment is preferable to surgery." He goes on to say, however, that radiation therapy nevertheless is slowly and consistently improving its results. It would seem, then, that the single challenge to surgery is the continuous improvement and perfection of the techniques of irradiation.

Dr. R. H. Crockett, San Antonio: After postoperative 200 kilovolt x-ray treatment has been given for cancer of the breast, skin nodules may occur. It has been my experience that these nodules are best controlled with lighter voltage (120 K. V.) and less filter (¼ mm. Cu. plus 1 mm. Al.). The skin can stand repeated treatments with this set-up much better than when heavier voltage and more filter is used. I have apparently cured some recurrent cancer nodules by repeating this lighter set-up, some three or four times, at from two to three-month intervals, giving 750 *r* at one exposure, which produces mild peeling.

TEACHING OF FOREIGN LANGUAGES

The claim that the teaching of foreign languages in our schools should not be started before the usual high school age should be re-examined, *The Journal of the American Medical Association* for January 20 says.

"After the war," *The Journal* explains, "scientific and medical discoveries will doubtless be made in what are now enemy countries and will be described in their own language and scientific periodicals. . . . The linguistic ability of most Americans compares unfavorably with that of Europeans and others who are exposed early in life to two or more languages. Many leaders of educational opinion in this country have claimed that there is no good reason to teach foreign languages in the schools before the usual high school age. This claim should be re-examined. Medical science has never failed to recognize the need for widespread dissemination of new discoveries; a most important instrument is comcomprehension of the language in which the discovery is made. Support of any methods, therefore, by which a greater knowledge of foreign languages can be achieved in this country will deserve the support of the medical profession."

COMPLICATIONS OF CHRONIC OTITIS MEDIA

REPORT OF A CASE

LOUIS DAILY, M. D.
HOUSTON, TEXAS

AND

JOHN L. DEAN, JR., M. D.
CROCKETT, TEXAS

S. J. B., a white male, age 36, was admitted to the Ear, Nose and Throat Service of the Jeff Davis Hospital, February 27, 1942. His chief complaint at the time of admission was severe pain in the top of the head, over the eyes, in the occipital region and in the left ear. Three weeks previous to his entering the hospital he suffered pain in the left ear and it began to discharge. Until this time he had never had trouble of any sort with his ears. (He and his wife still insist that, as far as they know, he never had earaches nor a discharge from the ears). The headaches became progressively worse, especially in the left temporal region. His wife claimed that he had some elevation of temperature from the beginning of the trouble.

A week before he entered the hospital, he consulted a physician, who gave him ear drops to use in his left ear. This they credit with stopping the discharge, but since then the headaches and fever had gradually increased. He had also developed mental confusion.

Past History.—The patient had had the usual childhood diseases with no reference to any ear complications. He had had no operations, and there had been no previous admission to this or any other hospital. He had always enjoyed good health, and had been working for fifteen years for one of the major oil companies.

Physical Examination.—The patient was a well developed and fairly well nourished male of about 36 years. He complained of pain in the left ear, left temporal region, vertex and occiput. He was apparently acutely ill and somewhat disoriented; dazed, could not coördinate well, and was sluggish in answering questions. The temperature was 103.6 F., pulse 88, respiration 28. He had moderate nuchal rigidity, and the head was drawn somewhat backwards. Cardiovascular and neurological examinations were negative. The fundi were negative for choked disks. Blood counts and urinalysis were within normal limits. The blood wassermann and Kline tests were negative. A spinal fluid wassermann was negative. There was a slight increase of globulin, but the Lange gave no curve.

A spinal puncture done the day after the patient entered the hospital showed no increase in spinal fluid pressure, 1,070 white blood cells of which 10 per cent were lymphocytes and 90 per cent polys, protein 337.3 mg., sugar 48.8 mg., sodium chloride 700 mg. He was given 30 grains of sulfathiazole as an initial dose. Four hours later he was given another 30 grains, then 15 grains every four hours. X-ray study showed the usual picture of chronic mastoiditis.

While making rounds on March 1, 1942, one of us* was asked to see a patient with meningitis, cause unknown, but who gave a history of earache of three weeks duration and a discharge from the left ear in the beginning of the trouble. Examination showed large perforations in Schrapnel's membrane, in both ears. The rest of the drum on the left side was dull gray in appearance and bulging. The drum was lanced, and material from the necrosis in the attic

*Dr. Daily.

Read before the Section on Eye, Ear, Nose and Throat, State Medical Association of Texas, Fort Worth, April 21, 1944.

was reported cholesteatoma by the laboratory. The patient's morning temperature at the time was 102.4 F. That afternoon the temperature came up to 103.6 F., pulse 96, respirations 24. The next day the temperature dropped to normal. It remained practically normal throughout his stay in the hospital, except on two occasions when it went up to 103.8 F. each time following a blood transfusion. The headaches disappeared. A spinal puncture the next day, March 2, 1942, showed 64 white blood cells to the field, 8 per cent polys, and 92 per cent lymphocytes. On March 3, 1942, the patient was brought to the Eye, Ear, Nose and Throat Clinic and walked from the stretcher to the examining chair. He asked to go home as he had no headache, no earache, no fever and felt almost as well as he ever did. There was a thin purulent discharge from the left ear, and also, a spontaneous second degree mystagmus to the right side. On account of the history of the case, the high spinal fluid cell count, the nystagmus and the cholesteatoma, it was decided that a mastoid operation was indicated.

A radical mastoid operation was done March 4, 1942; the mastoid bone was very sclerotic, and the tip cells contained serous pus. On opening the antrum, pus came out under pressure and it was filled up with granulation tissue. The pus looked like grayish thin pea soup with fine granules.

The dura of the middle fossa was exposed and was covered with pus. On inserting a flat instrument between the dura and bone inwardly, more exudate came out. The exposed dura was enlarged and the bone removed backwards to the angle of the middle and posterior fossa and inwards to the inner wall of the attic up to the horizontal fallopian canal. The dura in this area, an area for about 3 mm. in diameter, was whitish gray. It was incised and the knife extended over an inch into the brain tissue. Foul pus of the same character previously described came out under pressure, filling up the wound and over the drapings. Suction was used, and approximately 2 to 4 ounces of pus was removed. A large curved hemostat was introduced into the brain and spread open to help empty the abscess, which apparently occupied almost the whole temporal lobe of the brain. Iodoform gauze incorporated with sulfanilamide powder was packed into the brain as well as a rubber tissue drain. A flap was not made as one usually does in a radical mastoid. It was thought that if he died, he did not need the flap; if he lived it could be made at some future time. Eliminating the flap gave freer drainage for the abscess along the wound, which was left open.

He stood the operation well and the immediate postoperative condition was good. He was given 1,000 cc. 10 per cent glucose in saline immediately postoperative. The postoperative findings follow:

March 5, 1942, the patient was resting well. The temperature, pulse and respiration were normal. Five hundred cc. whole citrated blood, and 1,000 cc. 10 per cent glucose in saline was given. From here on, glucose in saline was given twice a day and 200 cc. blood every other day for five transfusions.

March 6, 1942, the neurological examination was negative. Recent and remote memory had been very poor since operation. In the afternoon he could not remember what he had for breakfast or lunch. He also had amnesic aphasia, calling objects by their wrong names.

March 11, 1942, he developed a rash. Sulfathiazole, which he had received since the operation, was discontinued.

March 14, 1942, the patient felt good and seemed clearer mentally for the first time. He could recall what he ate for breakfast, his age and where he worked. He still had a nystagmus to the right.

March 16, 1942, he had some pain in the right parietal and temporal regions. The general condition was good but he slept a great deal.

March 20, 1942, his mental condition was apparently worse. He was unable to carry out simple commands.

March 23, 1942, he seemed to have more cerebral deterioration and was very poorly oriented. The general condition was good.

March 27, 1942: Two or three pieces of necrotic tissue returned when irrigating the abscess with 5 per cent sulfanilamide solution. A rubber dam drain was inserted into the brain in place of the rubber catheter drain which was inserted soon after the first dressings.

April 1, 1942, following an irrigation, the patient developed paralysis of the right arm and a numb feeling throughout the arm. He could not raise the arm, indicating probably some injury to the motor cortex.

April 4, 1942, there was no purulent drainage for the first time.

April 10, 1942, the patient was doing fine. The paralysis and numbness of the arm disappeared.

April 23, 1942, he was dismissed from the hospital and was treated as an ambulatory patient. The wound was dressed every few days. He returned to work on June 1, 1942. The ear had healed and the fistula was closed June 20.

The patient gained about fifteen pounds the first six months following the operation. In October, 1943, the right ear began to discharge and he developed dull headaches over and behind the right ear. We were apprehensive of the possibility of a brain abscess developing in this side, also, and advised an operation as soon as possible.

On October 26, 1943, a radical mastoid operation was performed in the Methodist Hospital. The antrum and attic were filled up with cholesteatoma, there were granulations in the tympanum, and the ossicles were destroyed. He left the hospital in good condition on the fourth day and was back on the job on December 1, 1943. The ear was epitheleized within seven weeks.

At present he is in better health than ever and has gained between 30 and 40 pounds. He works every day and feels fine.

DIFFERENTIAL DIAGNOSIS

Although the signs and symptoms in this case were inadequate to make an exact preoperative diagnosis as to location, there are certain typical points to keep in mind in diagnosing the location of a brain abscess:

Temporal Lobe Abscess	*Cerebellar Abscess*
1. More often in children.	1. More rigidity of neck.
2. Aphasia; alexia frequently present.	2. Amaurosis.
3. Hemanianopsis.	3. Vertigo more marked.
4. Conjugated deviation of head and eyes toward side of disease.	4. Vomiting more marked.
5. Vertical nystagmus if abscess ruptures into ventricle, but a cerebellar abscess might also rupture into ventricles.	5. Ataxia more marked.
6. Occasionally nystagmus toward diseased side.	6. Adiadochokinesis.
	7. If eyes deviate to the healthy side, it is most likely a cerebellar abscess.
	8. Equilibrium disturbance and no coordination.
	9. Tender reflexes disturbed much less.

With the onset of focal signs, one can be sure of diagnosis, but it is too late and all but hopeless. One must get to the operation before or just at the beginning of this stage for any chance to save the patient.

INCIDENCE

Four to 5 per cent of all deaths which occur during the healthiest and strongest years of life, that is between 10 and 30 years, are due to suppurations of the ears, according to the statistics of Korner. It is therefore evident that the practicing physician ought to be versed in the main principles of otology.

Eleven per cent of chronic otitis media is complicated by cholesteatoma and cholesteatoma causes over 60 per cent of otogenous intracranial complications. According to information by Gen. Fred Rankin relayed to Dr. Walter Dean, 3.5 per cent of all army rejections are for ear defects. Otitis media and perforated ear drum were most commonly specified as cause for rejection among white registrants.

A preponderance of brain abscesses occurs in the second and third decades. According to Hammerschlag and Korner, who had 9 cases, it is more likely to be a cerebellar abscess in the second decade and a cerebral abscess in the third decade. Bernard Heine and Joseph Beck of Munich found one abscess in 1,764 cases of otitis media from 1901 to 1923, but they counted only those cases in which they were able to demonstrate pus to substantiate the diagnosis. Caldwell states that one abscess occurs in every 569 cases of middle ear infection while Jansen says one in every 714.

PATHOLOGY

These abscesses are not so much caused by suppuration of the membrane, but by suppuration of the bone associated with cholesteatoma which leads to extensive bone necrosis (by pressure). The beginning of an otogenic abscess cannot be determined in chronic suppurative conditions. It is easier determined in acute cases, where it may develop in three to four weeks.

The older the abscess, the more clumping there is of pus. According to Korner, the longest proven latency period was sixteen months, and he thinks that the latency period of otitic abscesses is frequently exaggerated.

In a cholesteatomatous process bone destruction takes place as a result of pressure necrosis. The type of complications arising in such cases depends upon the direction in which the destruction proceeds. It may extend into the labyrinth, the irritation of which is manifested by vertigo, nausea, or symptoms of a localized or generalized meningitis. The extension upwards leads into the middle cranial fossa, resulting in meningitis or brain abscess. Destruction of bone outward and forward produces a fistula into the external canal anterior to the annulus. In other cases, complete destruction of the inner portion of the posterior wall of the external auditory canal takes place, producing a natural cavity, referred to as "nature's radical mastoid."

The cells in spinal fluid are explained by a subarachnoid exudate (limited) under the abscess that causes a localized meningitis which in turn gives increase in cells in fluid.

Possible complications of brain abscess are given in table 1.

TABLE 1. *Possible Complications of Brain Abscess.*

Anatomical:

1. Fistula of ventricles.
2. Hydrocephalus interna.
3. Hydrocephalus externa.
4. Malformation of skull.

Pathological:

1. Suppurative meningitis, most frequent.
2. Pachymeningitis, externa and interna and with or without extradural abscess, and with very rare subdural abscess.
3. Sinus phlebitis and thrombosis, more frequent in cerebellar.
4. Labyrinthitis, rare complication of temporal lobe abscess but frequent in cerebellar.
5. Erosion of blood vessels causing hemorrhage.
6. Petrositis.

CONCLUSIONS

1. It is entirely possible that one may reach mid-life with a chronic otitis media with cholesteatoma granulations and destruction of the drum and ossicles without knowing that there is anything wrong with his ears.

2. It is possible for chronic otitis media to remain quiescent for years, apparently, while complications (such as the brain abscess) are in formation.

3. Although chronic otitis media is probably present in at least 3.5 per cent of the population, brain abscess is a rather uncommon complication.

4. The radical mastoid operation should be performed more often than is now practiced, as a preventive measure of complications of chronic otitis media.

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ABSTRACT OF DISCUSSION

Dr. L. M. Sellers, Dallas: It is an honor to have been asked by Dr. Dean and Dr. Daily to discuss their paper, and it is a pleasure indeed to discuss it.

Two facts seem to present themselves for our attention. As otologists we must forever be aware of the dangers of the chronic suppurating ear. When we first begin to practice, our surgical enthusiasm leads us to attempt a radical mastoidectomy to stop the discharge from every persistently discharging ear that comes within range of our mallet and chisel. Immature judgment and questionable surgical skill

produce some rather discouraging results. As a consequence we become more "conservative" and assume the attitude that if the discharge lessens under treatment so that the patient may keep the ear reasonably clean, and if no catastrophe seems to impend, we are on the right track. But sooner or later, and with lightning rapidity, one of these catastrophes changes its status from impending to present and we are forced to operate. When we see just what has been going on in the depths of the temporal bone while the appearance of the middle ear has lulled us into a false sense of security we are placed very quickly back on the safe track of sound reasoning, and conservatism takes on a truer meaning. We evaluate more carefully the warnings that are usually offered us in such cases. With more confidence in our more highly developed surgical technique and with more mature judgment we attempt to conserve the life and health of the patient rather than the status quo of the middle ear. It is the report of such cases as the one presented today that assists us in keeping to our purpose.

The second fact presents a question. How did such extensive invasion by a cholesteatoma occur without the patient's giving a history of an attack of acute otitis media in years past or of chronic ear discharge?

Our first hint as to the answer lies in the description given of the opposite ear in this case—an ear which apparently had been regarded as normal by the patient. We are told that there was a large (and presumably dry) perforation in Shrapnel's membrane, similar to the discharging one in the diseased ear. We are interested in the origin of this perforation. In many individuals a thick mass of mesenchymal tissue persists in the middle ear after embryonic development. When this mass begins to resorb in childhood, Shrapnel's membrane, being flaccid, is drawn back with it as it recedes into Prussak's space and into the attic of the middle ear and antrum. We then have the picture of a large space in the upper recesses of the tympanum and paratympanum lined by the epithelium that was once the external surface of Shrapnel's membrane. This is therefore directly continuous with the epithelium of the external canal, the communication being via the bottle neck delineated by the dimensions of the old Shrapnel's membrane, i. e., the space bounded above by the notch of Rivinius and below by the short process of the malleus. As the squamous epithelium lining this cavity desquamates it cannot escape via the bottleneck and it is imprisoned within the cavity. It forms a mass destined to grow by the accretion of concentric layers of desquamated epithelium—a true cholesteatoma formed without the existence of any initial otitis media or any perforation of the tympanic membrane. Such a cholesteatoma can wreak all the damage of one having its genesis in a chronic suppurative otitis media It requires only the entrance of a secondary acute infection to light a conflagration such as seen in this case. The cholesteatoma had eaten a pathway to the meninges of the middle fossa and to the temporal lobe. The infection followed the path so well prepared for it.

Again I wish to express my thanks for the privilege of discussing this excellent paper.

Dr. J. M. Robison, Houston: This case report of cerebral abscess is most interesting. This patient's new cerebral symptoms, which became manifested immediately after the abscess was drained, could have been the result of rapid evacuation of the abscess. During abscess formation there is rarely much destruction of brain tissue. Rather, there is an area of compressed cerebral tissue surrounded by an area of cerebritis, with the perivascular lymphatic spaces filled and obstructed with round cell infiltration. This status with the increased pressure frequently has been built up over a period of time. Sudden evacuation of the abscess cavity produces hemorrhage and areas of softening in the peri abscess tissue. Also, the abscess cavity collapses and becomes filled with edematous brain tissue which predisposes to poor drainage and loculation of pus.

A most efficient method of draining cerebral abscess is to open the abscess and pack the cavity with a long strip of rubber tissue, one-fourth inch wide, allowing only enough pus to escape to make room for the tissue. This rubber tissue may be left in place for two months or more while the abscess drains gradually, and the peri abscess cerebral tissue gradually readjusts itself to the slow reduction of pressure. This avoids changes in cerebral tissue around the abscess, which frequently appear as fatal complications several days after operation, or as epilepsy some months or years after operation. For further details concerning this method of drainage, I should like to refer to an article of mine published in the July, 1937, number of *Archives of Otolaryngology.*

INFANT MORTALITY IN LARGE CITIES IN TEXAS IN 1943

AUSTIN E. HILL, A. B., M. D., M. P. H.
HOUSTON, TEXAS

There was definitely an increase in the infant mortality rate in large cities in Texas as a whole in 1943 over the previous year. Month after month throughout last year the statistician of the Houston City Health Department constantly referred to the large number of infant deaths in Houston. Our monthly progress report for 1943 showed an increase over the same month of the previous year, every month except four. Thus, as early as May an estimate was made in a report to the City Manager that there would be a definite increase in the infant mortality rate in Houston for last year. The estimated figure at that time was 48, even though the rate for the previous year (1942) was an all-time low (41.6). Conditions were such in Houston that would lead one to predict for us a three-year setback.

The Red Cross and Travelers' Aid reported a large number of mothers traveling with infants. "It seems that every traveler has a baby, some with four and five, from two days old up."

Women with babies travel too much. For example, one baby who died was the infant of a 19-year-old mother who had followed her soldier husband to Houston from Chicago. The baby was three weeks old when the mother reached Houston. The mother stated "it had a fever and a slight cold." Three days later the baby died. I personally witnessed a trip of a young mother with a month-old baby from Utica, New York, to Little Rock, Arkansas. Much of the distance was in an overcrowded chair car. In St. Louis she received a telegram from her soldier

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husband, stating that he would be on guard duty the night of her arrival in Little Rock, which was 3 a. m. She was told to ask other soldiers to help her with her luggage and baby, as few or no "red caps" were available.

It was extremely difficult for pregnant women and mothers of infants to get domestic help in 1943. Research workers in the office of the War Manpower Commission in Houston stated that beginning in May and June of 1943 it became increasingly difficult to get domestic help, the difficulty reaching a peak in October, and, further, that the three months following were equally as critical. Where domestic servants were formerly paid $1.00 per day, they now demand $3.00 and up. Many former maids took defense jobs and office work at almost their own price.

Beginning early in 1943, many maternity wards began to send mothers home by the end of the fifth day because of overcrowded conditions, and it was necessary to make room for the oncoming women in labor. For example, there were three women who had

TABLE 1.—*Total Births, Infant Deaths and Infant Mortality Rates for Cities Studied.*

Total Figures for Cities Studied	1943	1942	1941	1940	1939
Births	53,043	46,230	39,979	33,888	25,814
Infant Deaths	2,940	2,189	1,925	2,142	1,493
Infant Mortality Rate	50.65*	47.35*	48.15*	63.20*	57.83*

*No. deaths per 1,000 live births.

babies last year who lived within a block of where I live. All three women returned home by the fifth day and not one of them had a nurse, maid or domestic help of any kind. They had to depend on relatives and friends to help them just as they did years ago when many of us were born.

Many physicians were not able to give their usual prenatal care, nor the usual careful delivery service that they were able to give in prewar days. The reason for this was patient overload; their physical well-being was below par, and they were tired from office hours and night deliveries. Many had to make home calls because their patients went home so early. One physician stated that he did not understand why the infant mortality rate was not higher.

Pediatricians were not able to make large numbers of home visits as they would like to; consequently many newborn babies went unseen by physicians for weeks and ofttimes months. For example, one case can be recalled where a three-weeks-old baby was receiving a formula of evaporated milk which was not diluted to equal whole milk and the mother wondered why the baby was not able to assimilate it. The woman had visited a good pediatrician when the baby was 15 days old and was told to return in three months. One pediatrician stated, "I am treating many more sick babies in homes now than I once sent to a hospital; beds for babies are hard to get now."

Soldiers' wives with infants had a doubly hard time. They were frequently new in a town. They had difficulty in securing a physician, their hospital stay was short, there was no domestic help available and sometimes there were no acquaintances to help. For instance, one young expectant mother was to return to her home and parents in the Northern part of the United States to have her baby. Her husband was ordered overseas and the woman went in labor before she could arrange to go home, thus leaving her at the mercy of strange people until her mother could arrive to help.

TABLE 2.—*Infant Mortality Rate 1939-1943 for Large Cities in Texas.*

City	1943	1942	1941	1940	1939
Wichita Falls	30.3	41.4	**	**	**
Tyler	35.3	31.7	49.9	39.7	52.1
Port Arthur	37.15	**	**	**	**
Fort Worth	39.1	41.3	37.4	45.9	48.3
Dallas	39.25	39.35	47.00	56.43	57.22
Austin	47.81	49.67	54.37	63.92	65.45
Houston	48.0	41.6	43.0	48.0	53.0
Galveston	48.0	53.1	41.8	41.5	60.5
Beaumont	48.62	42.40	44.12	50.27	55.91
El Paso	63.1	63.5	66.6	85.3	83.5
Corpus Christi	67.0	**	**	**	**
San Antonio	68.0	60.8	55.3	106.0	**

Quite a few women worked during pregnancy, some by choice, others because of necessity. This, of course, in no way could be conducive to the establishment of a good maternity or infant mortality rate.

Wichita Falls and Austin enjoyed a very nice decline in their infant mortality rates, and the health officers and physicians of those cities are to be congratulated.

Fort Worth, Dallas, Galveston and El Paso had a slight decline, or comparatively the same rate as the previous year, while Houston, San Antonio, Beaumont and Tyler had a rather sharp increase. Corpus Christi's figures were not available for previous years, but its record was second highest in 1943. Port Arthur showed low for one year only. It is believed this figure is inaccurate, judging from those in Beaumont, Galveston and Houston in the same congested industrial area. We received no figures for Waco.

The total figures for the cities studied showed an increase in infant mortality rate from 47.35 up to 50.65 for 1942 to 1943, with 11,813 more births and 751 more infant deaths in 1943.

It might be of some interest to health officers to know that cities in other states had an increase in infant mortality rates last

year. For example, the annual report for Louisville, Kentucky, showed an increase from 42.7 for 1942 to 56.4 for 1943. A telegram from Dr. L. M. Graves, Memphis, Tennessee, stated that the infant mortality rate for Memphis was 44.2 in 1942 and 49.1 in 1943. These two cities have excellent health departments, and their figures may serve as a comparison to our record in Texas.

CONCLUSIONS

1. There was an increase in the infant mortality rate in the large Texas cities as a whole in 1943 over 1942.

2. The increase was largely due to increases in Houston, San Antonio, Beaumont and Tyler.

3. There are believed to be many reasons for the increase in the infant mortality rate: (a) too much traveling with young babies; (b) lack of domestic help; (c) overcrowded hospitals; women being sent home too early; (d) overworked obstetricians and pediatricians; (e) many soldiers' wives living and traveling under difficult conditions; (f) pregnant women working in defense plants.

The outlook appears somewhat better for 1944. However, traveling will probably continue. Domestic help may get better. For example, three times as many domestics asked for housework in February, 1944, as in any one of the four months previous. The birth rate may decrease and the overload of the maternity wards, obstetricians and pediatricians may lessen some. Soldiers' wives will undoubtedly be better adjusted in 1944. In March, 1944, upon recommendation of the Houston Board of Health, the president of the Harris County Medical Society appointed a committee of twelve physicians to study the causes of maternal and infant deaths. This we hope will help to lower both our maternal and infant death rates.

I wish to thank the health officers who furnished the information necessary for the writing of this paper.

City Health Department.

ABSTRACT OF DISCUSSION

Dr. J. M. Dowis, Dallas: Dr. Hill's paper on infant mortality in the large cities of Texas was of great interest to me, as it was, I am sure, to other health directors in large Texas cities, and I must admit that during 1943 our infant mortality rate was carefully scrutinized each month in order that any trend towards an increase might be picked up. My observations during 1943 have indicated to me that the reasons for the increase in some of the larger cities of Texas, as set forth by Dr. Hill, are valid and common to all of the larger cities. Apparently, Dr. Hill has found traveling the most mportant factor with regard to the Houston increase. In the case of Dallas, we did not find this to be so, and we found that the one factor to be watched most closely beside the factors mentioned by Dr. Hill was the acute housing shortage which produced such over-crowding that proper prenatal and postnatal care was almost impossible. However, we had realized in 1942 that this might occur and had made plans to combat it as far as was possible with a coördinated program between the public health nurse and the obstetric departments of the various hospitals. The plan was difficult to execute because of the turnover in the nursing division, but apparently it was reasonably successful as the Dallas rate shows a slight decrease. I agree with Dr. Hill that 1944 will probably present less of a problem to the health officers of the larger cities than was the case in 1943.

I was very well pleased to note that while the larger cities did show an increase in infant mortality rates, that the trend for the past five years has been down in spite of adverse conditions.

There is one thing that the Dallas Health Department has been doing that I think is of importance to other health directors and that is correcting the infant death rate for residence. The 39.25 Dallas rate for 1943 is not corrected. This, however, does not indicate the actual infant mortality rate within the city limits of Dallas where the City Health Department has jurisdiction. For example, during March 1944 there were over 700 births recorded in Dallas. Of these 700 plus births, only 459 of the mothers actually resided in the city limits of Dallas and could be reached by our Department. There were 25 deaths among infants, 11 of which were nonresident. Using the total number of births and deaths as a basis the rate for Dallas in March was 32.0. If the births and infant deaths had been corrected for residence it would have been found that the infant mortality rate for the City of Dallas proper was 20 +. Since this represents the infant death rate of the population over which the City Health Department has control, it is a much more accurate index as to the efficiency and effectiveness of any program instituted to reduce an infant mortality rate. It seems to me that if this method had been followed in Houston that the actual or corrected infant mortality rate of Houston would be lower than that indicated by Dr. Hill's report. Naturally the crude infant mortality rate would have to be computed in order that comparisons with other cities might be possible but it does not indicate the effectiveness of any measures of control that might be instituted.

I think Dr. Hill's paper is very timely and upon a subject that is going to require a great deal of thought from all health officers.

PENICILLIN FOR PNEUMOCOCCIC MENINGITIS

Sixteen patients with pneumococcic meningitis were treated with penicillin with nine deaths, whereas among 40 patients treated with sulfonamides but not with penicillin there were thirty-seven deaths, four physicians report in *The Journal of the American Medical Association* for February 3. Some of those receiving penicillin also were given either sulfadiazine or sulfamerazine. Twenty-one of the 40 patients given either sulfadiazine or sulfamerazine also were given antipneumococcic serum.

"The two groups," Lewis K. Sweet, M. D., Washington, D. C.; Edith Dumoff-Stanley, M. D., Boston; Harry F. Dowling, M. D., Washington, D. C., and Lieutenant Mark H. Lepper, M. C., A. U. S., say in their report, "were shown to be very similar as regards the factors which are important in evaluating the prognosis . . . It is concluded that the optimal treatment of pneumococcic meningitis should include the use of penicillin and sulfadiazine or sulfamerazine. . . ."

WHOOPING COUGH MORTALITY IN TEXAS

W. A. DAVIS, M. D.*
AND
W. D. CARROLL, C. P. H.†
AUSTIN, TEXAS

Introduction.—It would not be amiss to term whooping cough the paradox of childhood communicable diseases. The unique behavior of this disease as compared with that of diphtheria, measles, and scarlet fever is evident if the distribution of deaths from these causes be considered as to age, race, sex, season, and geography.

The growing relative importance of whooping cough is frequently overlooked. In 1943 this disease caused a third more deaths than diphtheria, measles, and scarlet fever combined. If only the deaths under one year of age be considered, the contrast is even more striking, for in this age group, whooping cough was responsible for nearly seven times as many deaths as the other three together.

The purpose of this paper is to point out the peculiarities of the mortality due to whooping cough as reflected in the Texas death records. Certain comparisons cannot be made on exactly equivalent bases, and the limited number of years for which information is available does not permit any deductions as to long-time trends in Texas.

Reports of the Division of Vital Statistics, Bureau of the Census, Washington, D. C., have been utilized so as to introduce comparative data for the United States Registration Area.

Without exception, the rates as presented are per 100,000 estimated population.

ANNUAL INCIDENCE

The course of whooping cough mortality in Texas during the past thirteen years has been characterized by a considerable degree of variation in the annual death rates. Although the 1943 rate of 4.3 is greater than the rate for 1931, 4.0, there is a slight downward tendency in the trend. This trend is more evident for whites than negroes. Essentially the same annual change is found in an analysis by sex.

The epidemic year, 1934, had by far the highest death rate, 8.2, although 1933 with a rate of 6.2, 1937 with 5.9, and 1938 with 5.9, might be called epidemic years too. These four years did not exhibit as many epidemics; rather, an uninterrupted high mortality was found in the off seasons, fall and winter, continuing in both instances into the normal peak period of the following year.

Reports of Texas mortality for all ages, by race and sex, are available for 1933 through 1943. The Negro rate shows greater variation than that for whites, and except for 1936, exceeds the white rate. This marked divergence in the Negro rate may be accounted for in part by the fact that the fluctuation in rates tends to conform to the size of the population under consideration.

TABLE 1.—*Whooping Cough Mortality in Texas: Number of Deaths 1931 to 1943.*

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
ALL AGES	237	310	368	494	207	137	367	370	233	250	224	193	268
UNDER 1 YR.	157	196	233	312	142	93	235	259	161	183	170	150	209
—1 Mo.	*	*	14	26	10	10	10	21	11	16	*	*	*
1 Mo.	*	*	40	61	23	13	53	57	23	28	*	*	*
2 Mos.	*	*	42	50	18	15	25	35	26	31	*	*	*
3 Mos.	*	*	26	30	13	9	27	32	16	20	*	*	*
4 Mos.	*	*	15	27	19	8	21	23	20	19	*	*	*
5 Mos.	*	*	12	10	17	5	20	16	15	12	*	*	*
6 Mos.	*	*	16	23	6	7	24	14	13	11	*	*	*
7 Mos	*	*	17	23	5	5	9	13	9	8	*	*	*
8 Mos.	*	*	14	17	9	7	18	19	6	10	*	*	*
9 Mos.	*	*	10	16	10	3	13	9	8	12	*	*	*
10 Mos.	*	*	17	16	7	5	8	8	8	11	*	*	*
11 Mos.	*	*	10	13	5	6	7	12	6	5	*	*	*
1 YEAR	39	70	72	104	40	21	76	74	48	42	32	25	31
2 YEARS	18	20	30	31	11	9	23	20	9	14	9	7	14
3 YEARS	7	7	13	16	2	5	13	6	5	6	10	7	1
4 YEARS	8	6	7	8	1	1	6	3	3	3	1	1	9
5-9 YEARS	5	8	10	14	9	6	10	4	3	2	2	3	4
10-14 YEARS	0	1	2	3	1	0	2	2	1	0	0	0	0
15 YEARS*	3	2	1	6	1	2	2	2	3	0	0	0	0

*Data not available.

The excess of the Negro rate is most pronounced during epidemic years but in the lows that follow, the Negro rate dropped to or below the white. A contrast among whites of the rates by sex finds the male exceeding the female rate for only two years, 1939 and 1940.

Among Negroes the picture is quite different. The female rate was considerably higher in the 1933-1934 epidemic, but the next eight years found the male rate greater, with the female much lower in the 1937-1938 epidemic. In 1943, the female Negro rate was again in excess of that for males.

If the annual rates by sex be compared, we find that the male Negro rate, except for

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*State Registrar, Texas State Department of Health.
†Statistician, Texas State Health Department.

TABLE 2.—*Whooping Cough Mortality in Texas: Rates per 100,000 Estimated Population 1931 to 1943.*

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
ALL AGES	4.0	5.2	6.2	8.2	3.4	2.2	5.9	5.9	3.7	3.9	3.5	3.0	4.3
UNDER 1 YR.	144.2	182.0	216.2	273.3	123.2	82.7	204.7	216.3	133.0	146.3	127.2	105.8	128.2
—1 Mo.	*	*	13.0	22.8	8.7	8.9	8.7	17.5	9.1	12.8	*	*	*
1 Mo.	*	*	37.1	53.4	20.0	11.6	46.2	47.6	19.0	22.4	*	*	*
2 Mos.	*	*	39.0	43.8	15.6	13.3	21.8	29.2	21.5	24.8	*	*	*
3 Mos.	*	*	24.1	26.3	11.3	8.0	23.5	26.7	13.2	16.0	*	*	*
4 Mos.	*	*	13.9	23.7	16.5	7.1	18.3	19.2	16.5	15.2	*	*	*
5 Mos.	*	*	11.1	8.8	14.8	4.5	17.4	13.4	12.4	9.6	*	*	*
6 Mos.	*	*	14.9	20.1	5.2	6.2	20.9	11.7	10.7	8.8	*	*	*
7 Mos.	*	*	15.8	20.1	4.3	4.5	7.8	10.9	7.4	6.4	*	*	*
8 Mos.	*	*	13.0	14.9	7.8	6.2	15.7	15.9	5.0	8.0	*	*	*
9 Mos.	*	*	9.3	14.0	8.7	2.7	11.3	7.5	6.6	9.6	*	*	*
10 Mos.	*	*	15.8	14.0	6.1	4.5	7.0	6.7	6.6	8.8	*	*	*
11 Mos.	*	*	9.3	11.4	4.3	5.3	6.1	10.0	5.0	4.0	*	*	*
1 YEAR	33.7	60.8	63.0	91.8	35.5	18.7	68.0	66.6	42.5	37.2	27.0	19.5	22.8
2 YEARS	15.0	16.7	25.1	26.0	9.2	7.6	19.3	16.8	7.6	11.8	7.6	5.9	11.8
3 YEARS	5.6	5.6	10.5	13.1	1.7	4.2	11.0	5.1	4.3	5.2	8.7	6.1	.9
4 YEARS	6.5	4.9	5.7	6.6	.8	.8	5.0	2.5	2.5	2.6	.9	.9	7.6
5-9-YEARS	.8	1.2	1.6	2.2	1.4	1.0	1.6	.7	.5	.3	.3	.5	.7
10-14 YEARS	.0	.2	.3	.5	.2	.0	.3	.3	.2	.0	.0	.0	.0
15 YEARS*	.1	.1	.0	.1	.0	.1	.1	.0	.1	.0	.0	.0	.0

*Data not available.

1936, is much greater than the male white. For females, a wide fluctuation between races is present. The Negro rate was lower in 1935, 1936, 1938, 1939, and 1942, while in 1933, 1934, and 1943, a marked spread is shown in favor of lower rates for white females.

SEASONAL INCIDENCE

In this respect, whooping cough differs markedly from that of diphtheria, measles, and scarlet fever. The mortality from this disease for the past twenty years shows a gradual rise to its peak incidence during April, May, June, and July, with a rapid decline. Fall and winter find the mortality at its lowest. Whooping cough mortality is at the top of its seasonal curve when diphtheria is at the other extreme. The peaks for diphtheria and scarlet fever occur during the winter months, while the crest for measles comes in March, April, and May. These three diseases reach their peak mortality with a sharp rise and in the case of diphtheria and scarlet fever drop off at a less accelerated pace; however, the measles curve dips at a very acute angle.

A singular aspect of whooping cough is its small degree of seasonal variation. The mortality for the high month against the low month usually gives a ratio of less than 3:1, yet that for measles is over 20:1, and diphtheria, 6:1. Scarlet fever is more like whooping cough in that its high-low ratio is about 4:1.

Mention should be made of the causes complicating whooping cough deaths and their seasonal distribution.

In 1940, 2,926 deaths in the United States were attributed to whooping cough. Of this number, 2,291 or 78 per cent of the death

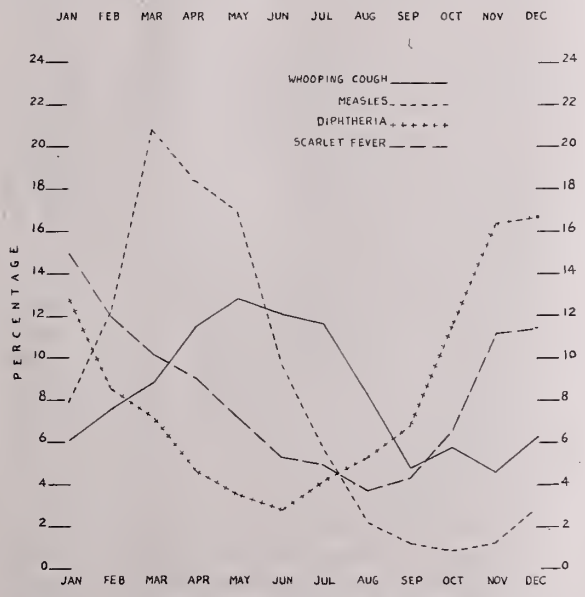

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
WHOOPING COUGH
MEASLES
DIPHTHERIA
SCARLET FEVER
PERCENTAGE
0 2 4 6 8 10 12 14 16 18 20 22 24

FIG. 1. Chart showing average percentage distribution of deaths from whooping cough in Texas, by months, from 1923 to 1942, compared to deaths caused by measles, diphtheria, and scarlet fever for the same period.

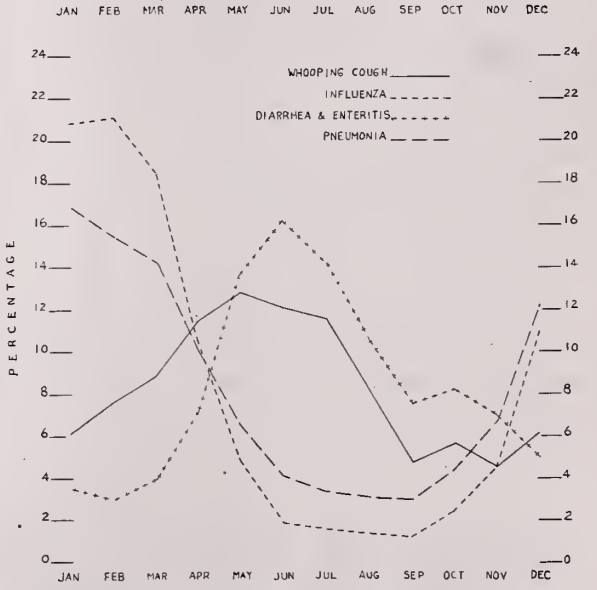

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
WHOOPING COUGH
INFLUENZA
DIARRHEA & ENTERITIS
PNEUMONIA
PERCENTAGE
0 2 4 6 8 10 12 14 16 18 20 22 24

FIG. 2. Graph showing seasonal distribution of diseases—influenza, diarrhea and enteritis, and pneumonia—complicating fatal whooping cough cases in Texas from 1923 to 1942.

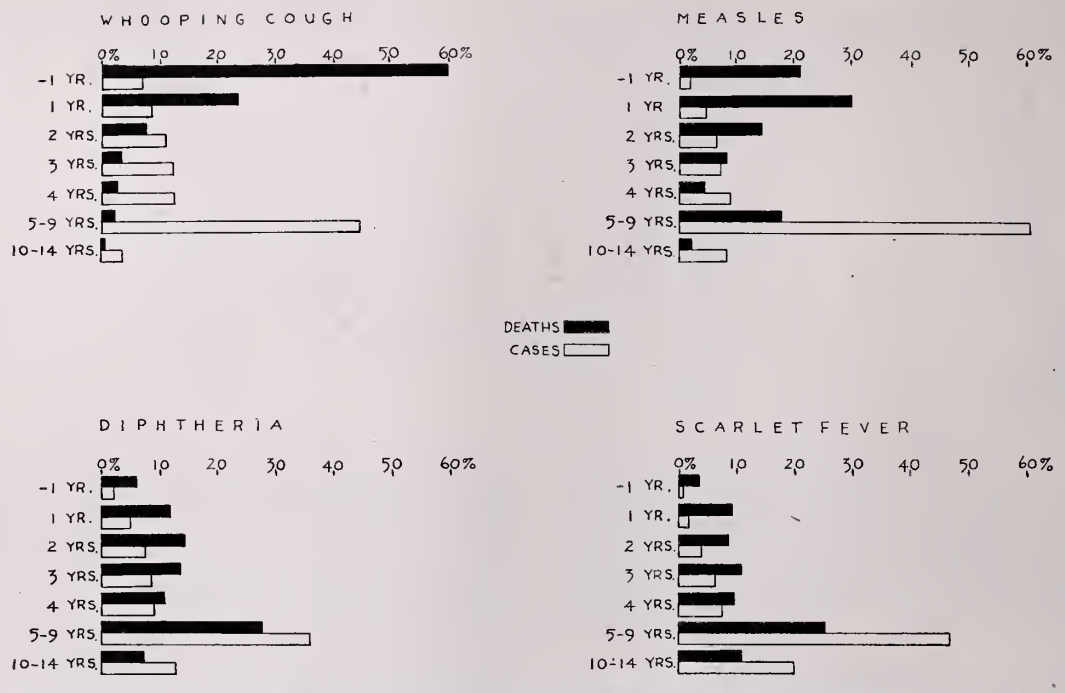


FIG. 3. Morbidity and mortality data pertaining to whooping cough, measles, diphtheria, and scarlet fever in children under 15, as taken from the annual reports of the New Jersey Department of Health for the years 1930 to 1934.

certificates indicated contributory causes. Either influenza or pneumonia was given as the secondary cause in 77 per cent of the cases, with diarrhea and enteritis shown as a complication on 7 per cent of the death certificates with more than one cause.

Although about three out of four whooping cough deaths, indicating a secondary cause, are complicated by influenza or pneumonia, we find that the seasonal high of whooping cough begins after influenza and pneumonia have passed their peaks and are regressing rapidly to their lows during the summer months. In the United States as a whole, the year 1918 with its pandemic of influenza, presents a strange picture with the death rates of diphtheria, measles, and scarlet fever lower than 1917, while the rate for whooping cough was over 60 per cent greater than that for the previous year.

Only about 10 per cent of whooping cough deaths involve diarrhea and enteritis as a contributory cause, but it is worth noting that the three peak months of this disease coincide with the last three months of the peak period for whooping cough.

URBAN AND RURAL INCIDENCE

It is not possible to compare the mortality rates for urban and rural areas in Texas, since data showing an allocation of deaths by residence are not available. With such information at hand, a strong contrast might have been made between the opportunity of contracting the disease in congested populations, and the death rates, which repeated studies have shown to be highest in rural areas, lowest in the largest cities.

MORBIDITY AND MORTALITY

The reporting of morbidity from whooping cough in Texas has shown improvement, but it is not yet sufficiently complete to justify a discussion of case-fatality ratios. No information concerning the age distribution of cases in Texas is available. In fact, whooping cough morbidity by age is obtainable for comparatively few states; but reports for the state of New Jersey* present a reasonably typical picture of cases and deaths from whooping cough. The data given in figure 3 cover the years 1930 to 1934 for those under 15 years of age.

These reports show that only 7 per cent of the total cases of whooping cough occurred among those under one year of age; however, this small percentage of the cases accounted for 60 per cent of all deaths from this disease. The age group 1 to 4 years, was responsible for 44 per cent of the cases and 37 per cent of the deaths.

It was observed that 44 per cent of the total cases of whooping cough occurred in children 5 to 9 years old, but only 2 per cent of the deaths took place in this age group. Only 3.4 per cent of the cases and 0.2 per cent

*Based on data contained in the annual reports of the New Jersey Department of Health for the years 1931-1935.

of the deaths occurred among those 10 to 14 years of age.

Thus, it is found that whooping cough mortality is a very minor problem after the fifth year of life, while the morbidity from this disease is practically restricted to those under 10 years of age.

AGE, RACE, AND SEX INCIDENCE

That whooping cough mortality is essentially a problem of early childhood cannot be overemphasized, for 97 per cent of the deaths occur in children under five years of age, or 9 per cent of the total population. Little will be said regarding the mortality over five, since less than 3 per cent of the deaths occur in this age group; further, the rates for those over 5 years of age are based on a small number of deaths and for this reason are subject to large standard errors. During the past four years, only a little over 1 per cent of the total deaths took place in the age group 5 to 9 years, with no deaths reported in those over 10 years of age.

The statement that most whooping cough deaths occur in the first few years of life is often made, and is true, but its generality clouds the acute problem of the mortality from this disease. Too infrequently it is asserted that approximately 70 per cent of all whooping cough deaths take place before the first birthday, involving less than 2 per cent of the total population. The percentage of male deaths under 1 year is in excess of that for females; in fact, among the negroes, 78 per cent of the male deaths are during the first twelve months as compared with 67 per cent for females. This percentage distribution must be considered with caution and when contrasted with the death rates stresses the sex differences of the population under 1 year, an excess of white males and Negro females.

An average of the death rates for the past seven years finds the white male rate to be 133, or about 90 per cent of that for white females, 149; for Negroes, the male rate under 1 year, 247, far exceeds the female, 184. Among males, the negro rate was nearly twice that of whites, while the white female rate was approximately 80 per cent that for Negro females.

Since nearly three out of four deaths from whooping cough occur under one year of age, the rates for individual months merit a closer examination. The death rates by months of age for the first year were averaged for the eight years, 1933 through 1940, to permit the following observations. The highest rate at any age, 32.2, is for the second month of life, when over 12 per cent, or 1 of 8 deaths from whooping cough, takes place.

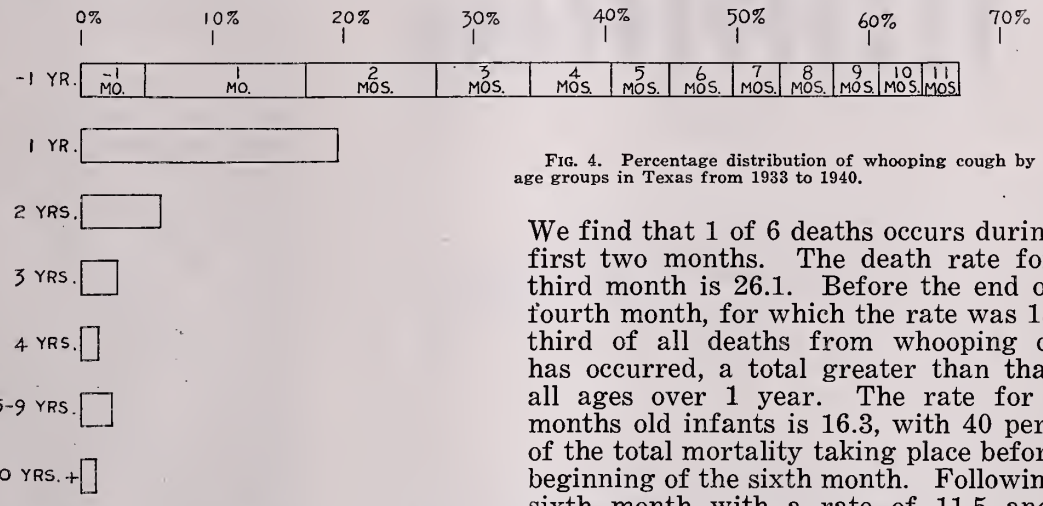


Fig. 4. Percentage distribution of whooping cough by age groups in Texas from 1933 to 1940.

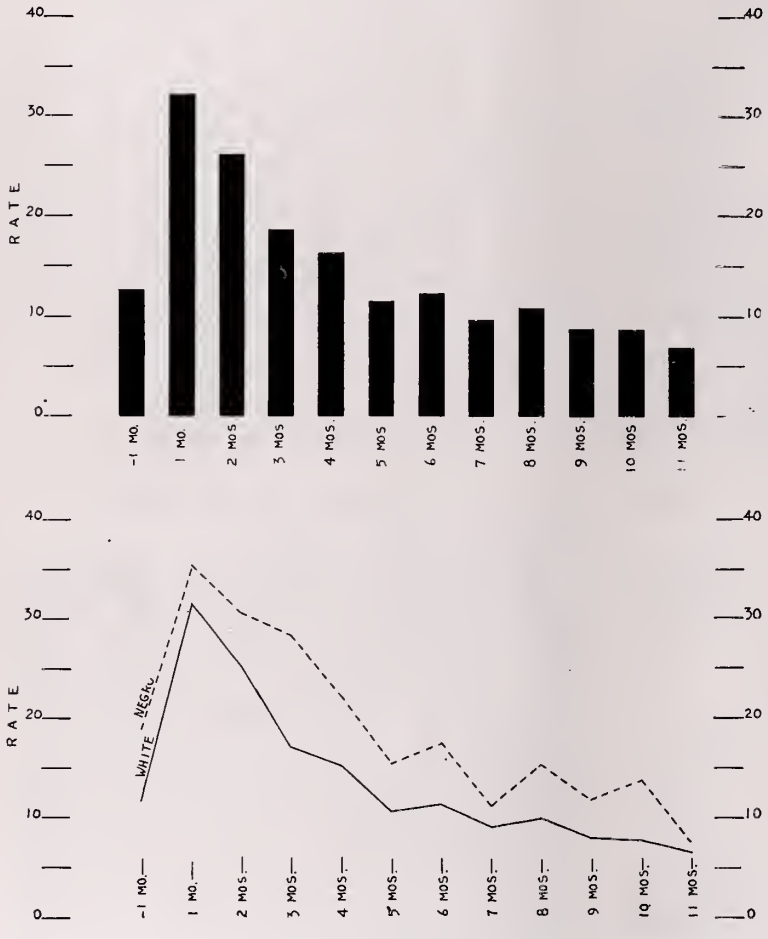
We find that 1 of 6 deaths occurs during the first two months. The death rate for the third month is 26.1. Before the end of the fourth month, for which the rate was 18.6, a third of all deaths from whooping cough has occurred, a total greater than that for all ages over 1 year. The rate for five-months old infants is 16.3, with 40 per cent of the total mortality taking place before the beginning of the sixth month. Following the sixth month with a rate of 11.5 and the seventh month with 12.3, the rates decrease fairly regularly to 6.9 during the last month of the first year.

It is of signal importance that one-half of the total deaths from whooping cough takes place among those 7 months of age and younger, or less than 1 per cent of the population. This fact is of great consequence if the mortality from this disease is to be materially reduced. A race analysis shows the Negro rates to be about 50 per cent greater than the white. No essential differences were noted in comparing the proportionate rates for whites and Negroes by ages under one year. Similar data by sex are not available.

Among the one-year-olds, the white male rate, 33, is only 68 per cent of that for white females, 48. This difference was not found for Negroes as the rates for males, 37, and females, 38, were practically the same. The rate for white females is about 20 per cent

greater than that for Negro females; however, the converse is true among the male deaths, for the white is about 10 per cent less than the Negro.

For two-year-olds, we find among whites that the male rate, 10, is slightly less than the female, 11, but the Negro male rate, 11, was only one-half as great as that for female Negroes, 22. These rates favor the male in both races, but decidedly so for Negroes.



FIGS. 5 and 6. Graphs showing whooping cough mortality rates in Texas in infants under 1 year of age. Rates are based on 100,000 estimated population and average death rates are shown for the period from 1933 to 1940.

The rates for whites three years of age are 5.7 for males and 5.0 for females. The Negro male and female rates were 8.3 and 9.7, respectively, with the female again higher than the male.

The male and female rates for four-year-old whites were about the same, 2.8 and 2.9. The Negro female rate, 6.4, was exactly twice that of males, 3.2. No essential variation is shown for males, but among females, the Negro rate is twice the white.

Looking over the Negro mortality for the first five years of life, the female rate is greater after the first year, which offsets the excessive mortality among Negro males during the first year.

For those 5 years of age and over, the male white rate is 0.6, a little over one half that for females, 1.0. Among Negroes, the male and female rates, 0.7 and 1.3, show that same proportion as whites. The sex rates for opposite races find the male about 80 per cent of that for females.

To present a picture of long-time trends of whooping cough mortality by age, race, and sex it is necessary to use as a basis the mortality for the entire United States taken from reports of the Bureau of the Census. The encouraging downward trend of the death rate for whooping cough reveals certain variations when broken down by age, race, and sex.

In 1900, the death rate for those under one year was 310, which decreased 68 per cent to 100 in 1940. This reduction was more marked in children 1 to 4 years of age, for the 1900 rate was 60, while in 1940 it was only 9.7, a drop of 84 per cent. Although involving a relatively small proportion of the total deaths from whooping cough, the sharpest decrease in death rates was found in those 5 years and over, for in this age group the 1940 rate, 0.4, is 90 per cent less than that of 4.1 for 1900.

The white male rate was 1.7 in 1940, a decrease of 76 per cent from 7.1, in 1915, while the white female rate shows a slightly greater reduction, 77 per cent, from 8.4 in 1915 to 1.9 in 1940. The Negro male rate in 1940 was 5.9, which is 63 per cent less than that of 15.8 for 1915; however, the Negro female rate during the twenty-six years dropped 71 per cent from 20.1 to 5.9.

In the United States as a whole, the male death rate from whooping cough is gradually approximating the female. In 1915, the male rate was 83 per cent of the female rate, but in 1940 this ratio had increased to 91 per cent. During the same twenty-six years, the white male rate expressed as a percentage of the white female increased from 85 per cent in 1915 to 90 per cent in 1940. Among Negroes, the male and female rates were the same in 1940; although in 1915 the Negro

male rate was only 79 per cent of the female.

It would seem from these trends that the whooping cough death rate for females is gradually approaching that of males.

Although in many studies no essential difference was found in the attack rates by sex, we know that the female death rate from whooping cough has been universally greater than the male rate. This singular characteristic leaves us with the question, "Does whooping cough attack without distinction but kill with discrimination?"

SUMMARY

Whooping cough is assuming a greater relative importance as a childhood communicable disease.

A slight downward trend in the death rate for whooping cough in Texas was found during the past thirteen years, which trend was more apparent for whites than Negroes.

April, May, June, and July find whooping cough mortality at its peak, which peak is reached gradually but drops off more abruptly. The degree of seasonal variation is low, that is, the ratio between the high and low months is about 3 to 1.

Of several singular aspects of this disease, the most striking is that its highest death rate is found during the second month of life, while one-half of all deaths takes place before the end of the seventh month. With few exceptions, the Negro rate is greater than the white. The death rate for females is usually higher than the male, yet it was noted that among Negroes, the male rate exceeded the female in eight of the eleven years considered.

Data for the State of New Jersey covering the years 1930 to 1934 showed that only 7 per cent of the total cases of whooping cough occurred among those under 1 year of age, yet this small percentage of the cases accounted for 60 per cent of all deaths from this disease.

ABSTRACT OF DISCUSSION

Dr. Grady Deaton, San Benito: The authors have covered their subject so thoroughly that practically nothing is left for discussion. About the only thing I can do is to enumerate a few of the things that made the strongest impression on me in a study of this paper.

As a County Health Officer, I am most interested in the number of deaths from whooping cough which would occur in my locality. The authors showed that in the age group up to one year, whooping cough was responsible for approximately seven times as many deaths as diphtheria, measles, and scarlet fever combined, and in one year, 1943, whooping cough caused one-third more deaths than diphtheria, measles, scarlet fever, all ages combined.

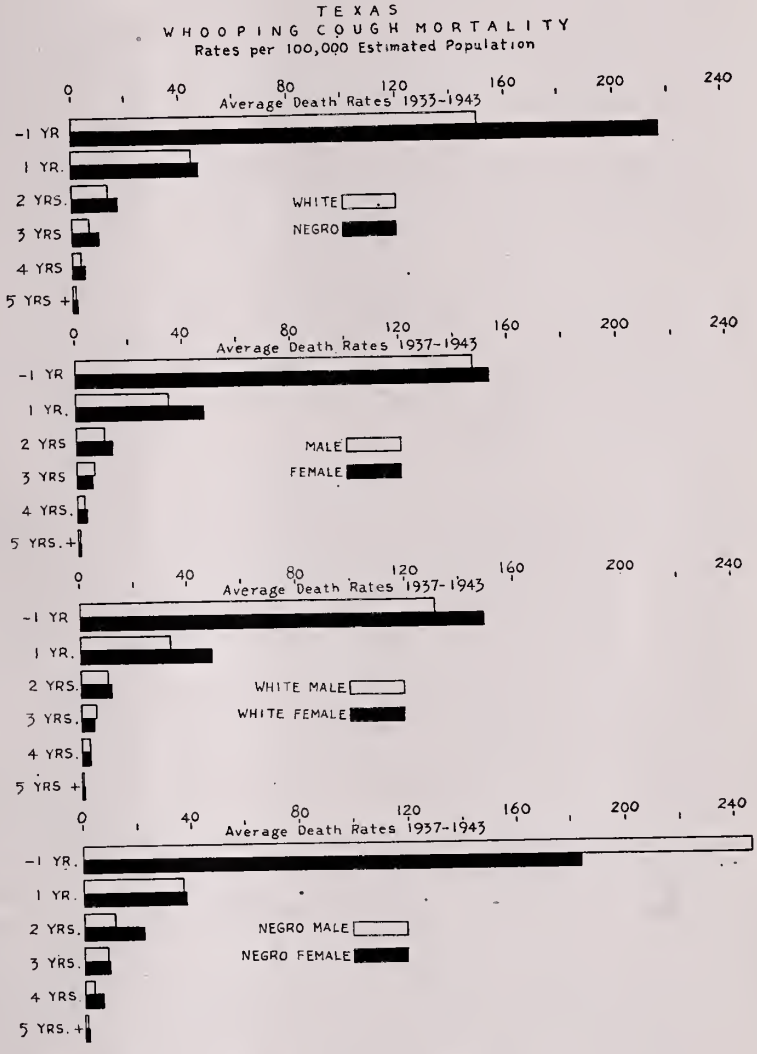


FIG. 7. Graphs comparing average death rates from whooping cough in Texas in white and Negro infants less than 1 year of age, to children 5 years of age, 1933 to 1943, and males and females, white and negro, 1937 to 1943, with averages based on 100,000 estimated population.

The comparison of the Negro and white mortality rates and the variations from year to year are of academic interest to the general practitioner, and even if the fluctuation of those were more or less pronounced from year to year, that would have no direct bearing on preventive measures to be taken by the County Health Officer. From the viewpoint of the health officer in the field, the authors brought out a very significant point, namely, the peak of occurrence of whooping cough in the months of April, May, June and July, with a gradual rise in those months and a rapid decline, while fall and

winter found mortality at its lowest level. This was exactly contrary to my conception of the peak incidence. The graphs showing the peak incidence of whooping cough, influenza, measles, and scarlet fever are very interesting for study. It should give health officers in the field a direct concrete idea as to what time of year to begin to push preventive measures for certain diseases, not only whooping cough, but other communicable diseases as well.

The authors show that 97 per cent of the deaths occur in children under 5 years of age. This being true, a school program in the prevention of whooping cough would scarcely be worth while. During the past four years there has only been 1 per cent of the total deaths above 5; 70 per cent of these deaths occur before the first birthday, and, according to the figures available, 32.2 per cent occurred in those one month old, and 40 per cent of the total mortality takes place the first five months. Following this there is gradual decline, according to the figures presented by the authors. This raises important questions for the general practitioner, as well as the County Health Officer. When and how is the best time to immunize for whooping cough? How can the diagnosis and treatment be improved, and how can we control the spread to the young? Of course these points were not discussed in this paper, since it dealt with the specific subject of whooping cough mortality in Texas, but these are questions for which we must find an answer:

Is it advisable to immunize babies who are only a few weeks old?

Due to the total deaths in the very young infant, would it be advisable to immunize babies immediately after birth, or should we carry on an extensive immunization program in the older children who carry the whooping cough back home to the smaller ones?

Should we carry out a strict quarantine for known cases of whooping cough?

Each one of these questions might well be discussed in a separate paper.

How certain is the immunization for whooping cough? These are things which must be answered by the individual doctor in his locality, and while not considered in this paper, the material presented by the authors will give him some idea so he can form a definite plan as to when and how he will carry on preventive measures.

Dr. J. V. Irons, Austin: The production of whooping cough vaccine encounters certain technical difficulties, such as growing the fastidious organism in mass quantities in the proper immunological phase. In a number of diseases the infant carries over from the mother a certain amount of antibody which persists in varying degree at least for a short time. The protection against whooping cough in this regard is at a minimum, and the very early immunization of the infant encounters certain practical difficulties of application. The suggestion of immunization of the prospective mother rather than the infant has appeared to be a possible solution to the problem of lowering mortality from whooping cough.

Physicians generally agree that tuberculosis control among the public cannot depend solely on an individual calling his private physician when he suspects that he has tuberculosis. The onset of the disease is too insidious and the mental attitude of the average patient too resistant. By the time the usual patient sees his physician he is already in the moderately or far advanced stage and has probably been spreading the disease for months. Physicians commonly agree that some mass approach to the problem of finding the asymptomatic case is essential.—*William P. Shepard, M. D., Amer. Rev. of Tbc.*, Sept. 1944.

SPLENECTOMY FOR THROMBOCYTOPENIC PURPURA FOLLOWING SULFATHIAZOLE THERAPY

BERNARD FARFEL, M. D.
HOUSTON, TEXAS

It is a well established fact that the sulfonamides can affect the blood stream elements. Cases of mild involvement such as moderate anemias or transient leukopenias are very common. Recently, there have been reports of 14 patients who had purpuric manifestations as a result of ingestion of sulfanilamide, sulfapyridine, or sulfathiazole. Some of these patients have been acutely ill and succumbed rapidly without opportunity for adequate study, verification, or therapy. The remainder made spontaneous recoveries. I believe this is the only instance where the patient survived but failed to respond to intensive medical therapy. Careful study was possible before and after splenectomy.

Schonberg[12] reported an instance of a 21-year-old woman who developed urticarial symptoms and purpura four days after beginning sulfanilamide therapy. One month later, after being given but 5 grains of sulfanilamide, she developed edema of the eyelids, lips, larynx, and forehead. No blood studies were reported and no instance of bleeding was detailed. No thrombopenia was shown.

Markel and Rike[7] report the case of a 59-year-old man, operated upon for a sarcoma of the ileum. This patient was given sulfanilamide postoperatively with resultant bleeding from the operative wound, hemoptysis, and hematuria. Blood studies revealed a prolonged bleeding time, normal coagulation time, and no clot retraction after twelve hours. A blood count showed 2,200,000 red cells, 50 per cent hemoglobin, and 180,000 platelets. This patient died and autopsy showed no abnormal bone marrow changes.

Of the 6 case reports of purpura resulting from sulfapyridine, 4 of the patients recovered under medical management. Aubertin and May-Darhovsky's[1] arthritis patient developed petechiae, and platelets dropped to 130,000. Goldbloom, Greenwald, and Reinstein's[3] patient was a woman of 50 whose platelets dropped to 25,000, with the development of purpura on the fourth day. Hoffman's[4] patient developed hematuria, blood oozing from gum margins and a purpuric rash. No blood studies were reported. Russell and Page[11] reported the case of a Negro, age 41, with epistaxis and blood oozing from the gums ten days after beginning treatment for pneumonia. Platelets were 60,000 and 34,000.

A fatal case is reported by Russell and

Page.[11] A 60-year-old male treated for pneumonia, developed epistaxis and purpura. The platelets eventually disappeared from the blood stream and the patient died fourteen days after admission. Dolgopol and Hobart[2] reported the case of a 4-year-old Negro girl treated with sulfapyridine, with a drop of platelets to 105,000, who died with an aplastic anemia.

Of the 5 instances of purpura associated with sulfathiazole medication, three are collected from the literature by Kracke and Townsend.[6] We note the inclusion of the case of acute hemolytic anemia reported by Quick and Lord[9] as one of thrombopenic purpura. This 19-year-old boy developed anemia following sulfathiazole with the blood count 12,400. It is interesting that bleeding and clotting time were not disturbed. The tourniquet test was positive. It became negative when the drug was discontinued. No difficulties recurred with later use of sulfathiazole.

This last instance is reversed by Werner's[13] patient who developed thrombocytopenia with but 1 Gm. given three weeks after an initial dose of 14 Gm. Meyer and Perlmutter[8] had a patient who developed an aplastic anemia with depression of all elements. The blood picture improved but the patient died of sepsis.

Hurd and Jacox[5] report an instance of sensitivity to sulfathiazole and sulfadiazine in a man who recovered from pneumonia. Sul-

CHART 1. *Laboratory Findings in Case of Thrombocytopenic Purpura*

DATE	HGB.	RBC	WBC		PLATELETS	BL. TIME	COAG. TIME	OTHERS
3-28-41	116% Sahli	5,300,000	11,400	Polys. 84 Lymph. 16	80,256	35 Min.	9 Min.	Urinalysis normal macroscopically and microscopically; no clot retraction after 15 hrs.
3-30-41 Transfusion 250 cc.					80,000			Prothrombin time 36 seconds (Normal 30) Kline negative Tourniquet positive.
4-1-41 Transfusion 500 cc.								
4-2-41	100%	5,480,000	6,800		50,000			No clot retraction after 72 hours.
4-3-41 Transfusion 300 cc.					60,000			
4-4-41					60,000			Profuse epistaxis.
4-5-41					180,000			
4-6-41					100,000			Slight clot retraction after 48 hours.
4-7-41					200,000			
4-8-41					210,000			Van den Bergh—direct and indirect negative.
4-25-41					113,000			
4-23-41					112,900			No clot retraction after 15 hours.
5-2-41	14 Gm.	5,080,000	10,600	Normal	44,000	181/4	6 Min.	Sedimentation rate normal. Prothrombin time normal—no clot retraction after 8 hours.
5-3-41								Bone marrow findings.
5-14-41					13,000			
OPERATION SPLENECTOMY								
5-16-41					119,000			
5-17-41					240,000			
5-21-41					568,000			
6-16-41					165,660			
8-8-41					175,060			
10-10-41					130,000			
4-27-43	100%	5,030,000	9,400	Normal	475,000			

subsequent appearance of a purpuric rash. No platelet count, bleeding or clotting time is noted. The thrombopenia was probably present and could be part of the general destruction of blood elements. Rosenfeld and Feldman[10] reported the case of a 37-year-old man whose platelets dropped to 2,000 with sulfathiazole therapy. The rest of the blood picture was hemoglobin 50 per cent, red blood count 2,600,000 and white

fathiazole used during treatment depressed the platelets. The use of sulfadiazine as an experiment two months later showed a depressing effect on the platelets. A second case is reported of fatal thrombopenia four days after its recognition during treatment with sulfadiazine for pneumonia.

Thus, a review of the literature reveals instances of purpuric manifestations occurring with sulfonamide treatment. In some

instances careful studies were made. Usually, this has not been possible, sometimes because of early demise or early spontaneous recovery. The case I am reporting differs in some ways from those previously described.

CASE REPORT

S. F., a 24-year-old white salesman, was seen on March 10, 1941, with epidemic parotitis. He was ordered to bed where he remained until March 15, when he was again seen because of orchitis. He was hospitalized at this time and his physician prescribed 60 grains of sulfathiazole a day. Prior to this illness, he had been treated through January and February for gonorrheal urethritis complicated by prostatitis and epididymitis. Sulfanilamide had been used for this illness. The amount is undetermined.

The patient was seen again on March 26, 1941. He stated that he had been discharged from the hospital. The swelling of the testicle had subsided. However, during his hospital stay he had two instances of persistent expistaxis. The patient's chief complaint at this time was a rash on the inside of his lips and oozing from the gums.

Previous history was non-contributory except for illnesses noted.

Physical examination revealed a well developed white male not appearing acutely ill. There were purpuric lesions in the mucous membranes of the mouth. Oozing from the gums was noted. Several small hemorrhages were noted in the retina. There were numerous minute petechiae on the extremities. The lungs were found clear to percussion and auscultation. The heart findings were normal. The blood pressure was 118/70. Abdominal examination revealed no palpable enlargement of liver or spleen. There was no lymphadenopathy.

Laboratory findings were as follows: Hemoglobin 116 per cent (Sahli), red blood count 5,300,000, white blood count 11,400, 84 per cent polys, and 16 per cent lymphocytes. Platelets numbered 80,256. The bleeding time was 35 minutes, clotting time 9 minutes. Clot retraction failed to occur after fifteen hours. Urinalysis was normal macroscopically and microscopically, no red blood cells being found. Chart 1 shows the laboratory findings as they varied from time to time.

The patient was hospitalized, and 250 cc. of citrated blood given on March 30. On March 31, platelets were 80,000, the prothrombin time was slightly increased, the tourniquet test was positive, and Kline test negative. Therapy during the hospital stay included high caloric, high vitamin diet, administration of liver extract, vitamin K, calcium lactate, cevitamic acid, and three transfusions. The temperature, pulse, and respirations were normal throughout. On April 4, the patient had a profuse epistaxis. On April 9, the patient left the hospital somewhat improved clinically with a platelet count of 210,000. However, petechiae were still present on the body.

The patient continued to receive all therapy except transfusion but there was still oozing from the gums and occasional epistaxis. On May 2, 1943, he was found to have a hemoglobin of 14 Gm., red blood count of 5,080,000, and a white blood cell count of 10,600. The platelet count was 44,000. The bleeding time was 18¼ minutes, coagulation time 6 minutes. The sedimentation rate and prothrombin time were normal. No clot retraction had occurred after eight hours. The sternal bone marrow showed slight increase in megakaryocytes and in immature forms. Sesame oil was added to the therapy already instituted.

On May 14, 1943, the platelet count had dropped to 13,000, and splenectomy was performed on May 15, 1943. On May 16, 1943, the platelet count was 119,000; on May 17, it was 240,000, and on May 21, it was 68,000. It will be noted that at long intervals it remained at a moderate level. On April 27, 1943, some two years later, it was 475,000.

COMMENT

A case of severe thrombocytopenic purpura originating during sulfathiazole therapy is presented. No permanent therapeutic response could be effected by medication. Splenectomy successfully checked the disease and no recurrence is noted after two years. No change occurred in other elements of the blood suggesting that the sulfonamides can affect specifically individual elements of the blood stream. That the platelets can be depressed by sulfonamides has been reported several times. The effect on platelets normally has been shown by Kracke and Townsend. This case presented opportunity for prolonged study, splenectomy becoming necessary six weeks after beginning of observation for purpura.

318 Medical Arts Building.

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11. Russell, H. K., and Page, R. C.: Thrombocytopenic Purpura due to Sulfapyridine, Am. J. M. Sc. 200:495 (Oct.) 1940.
12. Schonberg, I. L.: Purpuric and Scarlatiniform Eruption following Sulfanilamide, J. A. M. A. 109:1,035 (Sept. 25) 1937.
13. Werner, W. I.: Thrombocytopenic Purpura following Administration of Sulfathiazole, Southwest. Med. 26:49 (Feb.) 1942.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association. Dr. Edgar G. Ballenger, Atlanta, Ga., President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society, San Antonio, December 7-8. Dr. M. K. McCullough, Dallas, President; Dr. E. D. Dumas, San Antonio, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, San Antonio, fall, 1945. Dr. Allen Stewart, Lubbock, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 27, 1946. Dr. May Owen, Fort Worth, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association, Galveston, May 7, 1945. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Society for Mental Hygiene. Dr. Charles W. Castner, Capitol Building, Austin, President; Miss Jennie S. Wilmot, University of Texas, Austin, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. J. B. White, Amarillo, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love, City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians, Galveston, May 7. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Amarillo, April 10-11. Dr. D. D. Cross, Lubbock, President; Dr. George Powers, Amarillo, Acting Secretary.

Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society, Marlin, July 10. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. J. W. Foy, Seymour, President; Dr. Joe R. Wise, 1212 W. Lancaster, Fort Worth, Secretary.

Fourteenth District Society, Dallas, June, 1945. Dr. W. C. Morrow, Greenville, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

HOSPITALS NEEDING INTERNS AND RESIDENTS

All Saints Hospital, Fort Worth. Capacity, 100; admissions, 4,819; Miss Eva Wallace, Superintendent (1 general resident immediately).

Austin State Hospital, Austin. Capacity 2,810; admissions 1,060. Dr. A. T. Hanretta, Superintenddent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Methodist Hospital, Dallas. Capacity 176 beds. C. W. Sensenbach, M. D., Medical Director (2 interns now; 4 interns July 1).

Nix Hospital, San Antonio. Capacity 145; admissions 5,150. Miss Ellen Louise Brient, R. N., Superintendent (2 interns, October 1; 1, January 1, 1945).

St. Paul Hospital, Dallas. Capacity 270 beds. C. W. Sensenbach, M. D., Medical Director (1 intern now; 2 interns July 1).

Wichita General Hospital, Wichita Falls, capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (2 residents needed at once. Salary $175.00 and maintenance).

DALLAS ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

The Dallas Academy of Ophthalmology and Otolaryngology will meet April 3, at the Dallas Athletic Club, with Dr. Louis T. Byars of Washington University College of Medicine, St. Louis, Missouri, as honor guest. A luncheon will be held at 1:00 p. m. honoring Dr. Byars, following which he will deliver a lecture on the subjectt, "Neoplasma of the Head and Neck."

At 6:30 p. m. a dinner will be given honoring Dr. Byars, following which he will deliver a lecture on the subject, "Correction of Congenital, Traumatic, and Operative Defects of the External Nose."

Dr. John L. Jenkins will serve as commentator and Dr. J. Warner Duckett as discusser.

All who wish to attend must make reservation in advance for the luncheon and dinner. Any member of the State Medical Association is cordially invited to attend.

MEDICAL CONDITIONS IN WAR RUSSIA

Dr. Sofia Markina, director of Dzerzhinsky Children's Hospital in Moscow, U. S. S. R., reports the virtual disappearance of poliomyelitis in the Soviet Union since the start of the war. She attributes this remarkable condition to the wide dispersal of children during the evacuation which took place early in the war.

Dr. Markina also reports a decline of rheumatic fever, which she credits to the lack of protein content in Russia's wartime diet. She points out, however, that dietary insufficiency has created other serious nutritional cases requiring sanatorium treatment. With reference to the absence of epidemics as a whole, Dr. Markina cited the increased incidence in malaria carried by children who have returned from evacuation points in Central Asia.

The staff of the Dzerzhinsky Children's Hospital, under Dr. Markina's supervision, is now making a study of wartime effects on the health of children.

"THE MEDICS"

The "medic" is a must in any fighting force. He is likely to combine the functions of Kipling's Gunga Din, Florence Nightingale, the Good Samaritan and the most skillful surgeon science has produced. He frequently does so at the cost of his own life. Unarmed stretcher-bearers seek out the wounded where the shells are still striking. Because they know that time is of the essence, they are always in a hurry. Sometimes a complicated operation has to be performed in a foxhole. During the Metz offensive a 19-year-old medical aide saved a doughboy's life by cutting a fountain pen tube into his throat with a pocket knife. But they try hard to get the victim to the nearest hospital. Maybe it is a blasted barn or an open cellar. It may be a tent over the brow of the next hill, with the surgeons operating under enemy fire. At Bastogne two or three surgeons had to handle 800 patients with nothing to dull their

pain but cognac. Everybody cheered when five more surgeons got through by plane and glider.

There is little glory in the Medical Corps. It is just hard, dirty work and mighty dangerous. The Red Cross seems to mean little to the enemy. He has bombed hospital tents from Anzio to Aachen. These medics are tough, but among the torn and dying men learn to be tender, too. They shun glory, but they have their pride. They are proud to have saved 97 out of every hundred wounded. They are proud that their miracle drugs and bloood banks send from 50 to 80 back to fight again. They are proud because nobody in our whole vast Army, not even the foremost combat crew or the deadliest flying wing, has done a finer job than the Medical Corps.—*New York Times*, Jan. 5, 1945. *(S. G. O. Notes*, Jan. 15, 1945.)

SYNTHETIC RUBBER AND DERMATITIS

"There is comparatively little dermatitis occurring in the manufacture of synthetic rubber despite the many irritant chemicals used," Louis Schwartz, M. D., Bethesda, Md., says in the February 17 issue of *The Journal of the American Medical Association.*

"This is explained," he continues, "by the fact that the factories making synthetic rubbers are modernly equipped with mechanical safety devices and most of the safety recommendations made in this paper are already being carried out.

"We need anticipate but little more dermatitis from the manufacture and processing of synthetic rubbers than we have had from natural rubbers, provided future plants are erected with the same careful planning as the present ones and the safety recommendations in this paper are carried out."

POSTWAR CONTROL OF VENEREAL DISEASE

The postwar period will present far greater assets for the control of the venereal diseases than have been available at any previous time, Lieutenant Colonel Thomas H. Sternberg and Captain Granville W. Larimore, Medical Corps, Army of the United States, predict in *The Journal of the American Medical Association* for January 27.

"A tremendous number of physicians and lay personnel trained and experienced by the Army in the principles of venereal disease control," they say, "will be available. The dilution of the postwar population by 9,000,000 soldiers will raise the general venereal disease educational level to a new high, and it seems certain that future venereal disease control programs will be accorded increased public support. In this connection, efforts to reimpose a blackout on the venereal diseases are doomed to failure. The remarkable advances in treatment climaxed by the introduction of penicillin will add great impetus toward achieving the goal of universal case finding and case holding. Mass wartime experiences will add considerably to the venereal disease control armamentarium.

"These factors, added to the stabilization of community life and the return of opportunity to follow the natural instincts of monogamous relationships, all lead to the conclusion that we shall be presented with an unprecedented opportunity to reduce the incidence of the venereal diseases to a manageable minimum."

COLONEL AHNFELDT ON "WE THE PEOPLE" PROGRAM

Lieutenant Colonel A. L. Ahnfeldt, M. C., Director, of the Sanitation and Hygiene Division, Office of The Surgeon General and Executive Chairman of the Army Committee for Insect and Rodent Control was interviewed on the "We the People" radio program about the insecticide DDT. It is used in two ways, he said: As a dusting powder which is effective against lice and other disease-bearing insects; and in the form of an oil spray for killing mosquitoes and flies. Of course DDT is not a cure-all, he said, but in the perpetual war between humans and disease, DDT is one of the most effective health weapons yet discovered by man.—*S. G. O. Notes*, Jan. 31, 1945.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during February:

Southwestern Medical College, Dallas—(2 journals).

Miss Adele Barnes, Canyon—*Medicine, socialized* (30 articles).

Miss Louise Ann Bennett, New Orleans, La.—*Medicine, socialized* (13 articles).

Dr. Henry R. Maresh, Houston—*Medicine, socialized* (27 articles).

Dr. Dan Brannin, Dallas—*Exophthalmos* (19 articles).

Dr. Roy F. Baskett, Texarkana—*Pneumoconiosis* (20 articles).

Major S. H. Nickerson, Camp Maxey—(1 journal).

Dr. E. D. McDonald, Santa Anna—*Fractures, ununited* (13 articles).

Dr. O. F. Harzke, Comfort—*Cornea, ulcers* (15 articles).

Capt. J. P. Gibson, Whipple, Arizona—*Elephantiasis* (14 articles).

Lt. Col. Richard A. Dathe, Camp Maxey—*Jaundice, catarrhal* (14 articles).

Dr. F. E. Dye, Bay City—*Medicine, socialized* (17 articles).

Dr. Roland F. Knox, Wichita Falls—*Uterus, hemorrhage* (15 articles).

Dr. Wayne V. Ramsey, Abilene—*Gastro-Enterostomy* (11 articles); *Linitis Plastica* (9 articles).

Major Roger G. Magruder, Wichita Falls—*Malaria* (12 articles).

Dr. G. E. Henschen, Sherman—*Syphilis and Trauma* (5 articles).

Dr. Victor E. Schulze, San Angelo—(1 journal).

Dr. Charles Mims, Mission—(1 book).

Dr. A. S. Epperson, Houston—*Sex, frigidity* (8 articles).

Major David A. Nathan, Camp Maxey—*Pericarditis, with effusion* (8 articles).

Dr. Clarence Gilmore, Paris—*Teeth, caries* (19 articles.)

Mrs. Vera Ehlert, LaGrange—*Medicine, socialized* (25 articles).

Lt. E. E. Miller, College Station—*Headache* (29 articles).

Lt. Clarence B. Wyngarden—(6 journals).

Mrs. C. O. Terrell, Galveston—*Burns, therapy* (13 articles).

Dr. E. Filmore Meredith, Olney—*Penicillin* (17 articles).

Dr. Russell D. Holt, Meridian—*Brain, hemorrhage* (7 articles).

Dr. C. G. Allen, Commerce—*Thromboangiitis, obliterans* (15 articles).

Dr. S: B. Slaughter, Jr., Velasco—*Ascorbic Acid* (7 articles).

Dr. D. V. Rodgers, Gorman—(1 journal).
Dr. Ottis Walker, Mission—*Thyroid, hyperthyroidism* (6 articles).

ACCESSIONS

Chicago, Year Book Publisher—Painter: The 1944 Year Book of Industrial and Orthopedic Surgery.

Baltimore, Willams & Wilkins—Taylor: The Abortion Problem; Proceedings of the National Committee on Maternal Health.

Lancaster, Pennsylvania, J. Cattell Press—Wallace: The Marihuana Problem in the City of New York.

Springfield, Illinois, Charles C. Thomas, Publisher—McDonough: Poet Physicians.

St. Louis, C. V. Mosby Company—McCormick: A Textbook on Pathology of Labor, the Puerperium and the Newborn.

New York, D. Appleton-Century Company—Kolmer and Boerner: Approved Laboratory Technic, ed. 4.

Philadelphia, Pennsylvania, J. A. Lippincott Company—Transactions of the American Proctologic Society, 1944.

SUMMARY

REPRINTS RECEIVED, 1,216	LOCAL USERS, 45
JOURNALS RECEIVED, 159	BORROWERS BY MAIL, 31
ITEMS CONSULTED, 219	PACKAGES MAILED, 35
ITEMS TAKEN OUT, 215	ITEMS MAILED, 400

TOTAL ITEMS CONSULTED AND LOANED, 834

MOTION PICTURE LENDING LIBRARY

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during February:

Modern Nutrition (Available for loan through courtesy of E. R. Squibb & Company) Tom Green Eight-County Medical Society, San Angelo; Gulf Health Department, El Campo; Galveston County Medical Society, Galveston.

Know for Sure (Available for loan through courtesy of Texas State Board of Health) Texas State Guard, Crockett.

Immunization Against Infectious Diseases (Available for loan through courtesy of Lederle Laboratories, Inc.) Hill County Medical Society, Hillsboro; Bacteriology Class, Texas Christian University, Fort Worth; Wilbarger County Medical Society, Vernon.

Premature Infant, the Care of (Available for loan through courtesy of Mead Johnson & Company) Anderson-Houston-Leon County Medical Society, Crockett; Wilbarger County Medical Society, Vernon.

Poliomyelitis, the Sister Kenny Method of Treatment of (Available for loan through courtesy of Dr. Herbert Hipps, Marlin) High School, Bonham; Rotary Club, Bonham; Wilbarger County Medical Society, Vernon.

Globulin Modified Antitoxins (Available for loan through courtesy of Mead Johnson & Company) Bacteriology Class, Texas Christian University, Fort Worth.

Oxygen, the Administration by Oro-Pharyngeal Catheter (Available for loan through courtesy of Mead Johnson & Company) Wilbarger County Medical Society, Vernon.

Sutures Since Lister (Available for loan through courtesy of Johnson and Johnson) Harris School of Nursing, Fort Worth.

Mastoid Surgery (Available for loan through courtesy of Dr. Louis Daily, Houston) Harris School of Nursing, Fort Worth.

Plain Facts (Available for loan through courtesy of American Social Hygiene Association) Fort Worth Army Air Field, Station Hospital, Fort Worth.

In Defense of a Nation (Available for loan through courtesy of American Social Hygiene Association) Fort Worth Army Air Field, Station Hospital, Fort Worth.

NEWS

The Texas State Board of Medical Examiners issued licenses to eighty-two physicians at a meeting January 21, at the Colonial Club, Fort Worth, as a result of examinations conducted by the board in Dallas, December 20. The board also granted licenses to thirteen physicians on reciprocities.

The board will conduct its next examinations at Galveston, June 4, 5, and 6, for the benefit of recent graduates from the University of Texas School of medicine.—*Fort Worth Star-Telegram.*

Expansion of Prairie View Normal to University, was recommended recently by the State Board of Education to the Legislature, informs the Houston *Press.* Phillip M. Stevenson, Houston member of the board, commenting on the proposal, pointed out that Prairie View Normal is the only state supported Negro college in Texas and that it should be enlarged to the extent that would afford opportunity to Negro students equal to that offered white students at the University of Texas and A. & M. College. While no reference was made to the proposed location of such university, at the board meeting, Mr. Stevenson expressed the view that Houston, with its vast clinical facilities and those to be established, would be the ideal location. It was pointed out that nearly one-fifth of Houston's population, or approximately 100,000, are Negroes.

The Saint Elizabeth Hospital for Negroes was named as a possibility for local medical training and Negro internship.

Members of the State Board of Education expressed the view that the expansion of Prairie View Normal into a first-class University for Negroes would solve some of the problems concerning their education, and that steps should be taken to provide medical, legal and other professional training comparable to the present excellent teaching, veterinary medicine, vocational agriculture and nursing departments now being given at Prairie View Normal. Medicine, pharmacy, dentistry, and nursing were all stressed as "musts" by Mr. F. M. Law, supervisor of Prairie View, and present head of the Houston Chamber of Commerce Educational Committee.

Group Hospital Service in Texas recently elected the following officers at a meeting of the board of directors in Dallas, advises the Dallas *Times Herald:* Dr. E. H. Cary, Dallas, president; Mr. Robert Jolly, superintendent, Memorial Hospital, Houston, and Dr. L. N. Markham, Longview, vice-presidents: Mrs. Margaret Hales Rose, superintendent, Wichita General Hospital, Wichita Falls, secretary; and J. Howard Payne, treasurer.

Members of the board re-elected included: George B. Dealey, Dallas; J. Anderson Fitzgerald, dean of the School of Business Administration, University of Texas, Austin; W. E. Justin, Fort Worth; M. J. Morrow, Dallas; Payne; Ben Taub, Houston, and Tol Terrell, Fort Worth. C. J. Hollingsworth, Lubbock, was elected a new director, and Dr. C. C. Cody, Houston, was elected ex-officio officer.

Board members whose terms have not expired include Charles Ashcroft, Sulphur Springs; Lawrence Payne, Dallas; Mrs. Josie Roberts, Houston; Chauncey D. Leake, Galveston; John Burleson, San Antonio; Robert Jolly, Houston; E. M. Collier, Abilene; Harry Hatch, Amarillo; Mrs. Alfreda P. Hassell, San Antonio; Sister Mary Vincent, Waco, and officers of the organization.

Texas Hospital Staffs continue their annual elections of officers as follows:

The Brownwood Memorial Hospital elected the

following officers at a recent meeting, advises the Brownwood *Bulletin:* Dr. Ernest F. Cadenhead, president; Dr. R. G. Hallum, vice-president; and Dr. D. R. Scott, secretary. Since its beginning five years ago, the hospital has grown from sixteen beds to a capacity of more than 100 beds.

The Wilson N. Jones Hospital staff, Sherman, elected the following officers at a recent meeting, reports the Sherman *Democrat:* Dr. Max R. Woodward, chief of staff, Dr. Frank Sporer, Van Alstyne, vice-president, and Dr. Coble D. Strother, Sherman, secretary.

Hendrick Memorial Hospital, Abilene, elected officers for the ensuing year, as follows, states the Abilene *Reporter-News:* Dr. O. W. Little, chairman; Dr. L. J. Johnson, vice-president, and Dr. George D. Thurman, secretary. Executive committeemen named were Drs. T. Wade Hedrick, Dr. Erle D. Sellers, Dr. Virginia H. Boyd, Dr. A. V. Cash and Dr. Rhodes.

Edward H. Cary Lectureship was established recently at Southwestern Medical College, Dallas, as an expression of appreciation to Dr. Edward H. Cary, president of the Southwestern Medical Foundation, for his work in connection with the foundation and the Southwestern Medical College. A series of lectures will be presented by guest speakers. Dr. Tom D. Spies, professor of medicine at the University of Cincinnati, and recognized authority on pellagra and as a research worker in the field of nutrition, gave the first lecture in the Medical Arts Building, Dallas, February 5. Members of the Foundation, the faculty of Southwestern Medical College and Dallas County Medical Society attended. Dr. Spies is a native Texan.

Dr. Donald Slaughter, dean of students at Southwestern Medical College, announces that only nationally known scientists will be presented in connection with the newly established lectureship and that there will probably be three such lectures each year.—*Dallas News.*

Dallas Negro Medical Center Proposed.—Dr. L. G. Pinkston, chairman of the health and hospital committee of the Dallas Negro Chamber of Commerce, is urging the establishment of a Dallas Negro Medical Center to be operated by and for Negroes, reports the Dallas *Times Herald.* Dr. Pinkston stated that the Southwestern Medical Foundation has a contract with the City of Dallas for a twenty-year use of Parkland Hospital Clinic in the treatment of Negro patients by medical students as laboratory work, and that this is not sufficient to maintain health for the large number of Negroes in need of medical care in Dallas. The committee proposes a building which would cost at least $200,000, and which would provide at least 100 beds with complete clinical equipment. It is proposed that all Negro physicians of Dallas would be eligible to bring their patients to such hospital whether charity or pay patients. A free day clinic would also be operated at the center. Dr. Pinkston has practiced in Dallas for twenty-three years and operates a private clinic.

Postwar Expansion of University of Texas Medical School and John Sealy Hospital Urged.—The postwar planning committee of the public works committee of the Galveston Chamber of Commerce has approved and urges an expansion program for the University of Texas School of Medicine which would call for the expenditure of $6,100,000, of which amount $2,300,000 will be gifts, states the Galveston *Tribune.* The program would include the following: A new general hospital building for John Sealy Hospital, 600 beds, $2,000,000, the full amount to be contributed by the Sealy-Smith Foundation; addition to the State Hospital for Crippled and Deformed Children, $200,000, from state funds; addition to laboratory, $1,000,000, from University of Texas funds; library, auditorium and students union, $1,000,000 from University of Texas funds; dormitories and faculty housing, $5,000,000, for which revenue bonds would be submitted; tuberculosis hospital, 200 beds, $600,000, $300,000 of which amount would be obtained from the federal government and $300,000 from the county; Galveston State Psychopathic Hospital extension, $500,000, from state funds; addition to John Sealy College of Nursing, $250,000, from University of Texas funds; addition to Margie B. Stewart Convalescent Home for Children, $50,000, from University funds.

Public Health Programs are being planned for the coming year in Texas, inform Texas newspapers.

The Houston city board of health has recommended that the health department of that city make a thorough check and inspection of all boarding homes for children in Houston. The recommendation came following a discussion of a fire in a boarding home in Maine which cost the lives of seventeen children, states the Houston *Press.* The Houston Health Department's No. 1 project for 1945 is typhus control. As soon as the current city-wide venereal disease education program is completed, a similar program on typhus fever will be instituted. The rat eradication program directed at typhus control will be speeded up in 1945.

Dr. Robert A. Johnson, member of the Houston board of health, following a discussion of the increase of diphtheria in Houston in 1944 and a need for an augmented immunization program, recommended that each hospital give to mothers of babies born there, a note advising them to have their babies immunized against diphtheria when they reach six months. Dr. Johnson pointed out that such a plan would reach about 10,000 mothers per year, since 90 per cent of Houston's babies are born in the hospitals.

Major W. P. Scarlett, director of the Wichita County Health Unit, in reviewing the unit's records during the past year, reported that the venereal disease control reflected during 1944 an average pickup of venereal disease suspects of thirty-five per month, states the Wichita Falls *Record-News.* The year's total of 423 women detained for investigation included eighty-six white and fourteen Negro. Girls under 18 years of age comprised 13.5 per cent of the total. A total of 192 were found to be infected with venereal disease. During 1944 there were 939 admissions to the venereal disease clinic against a total of 1,830 in 1943.

A gain of 1,700 was registered in 1944 in the number of school children examined by physicians or nurses. Special attention has been given to visual defects and many children have been provided with glasses. During 1944, twenty-nine crippled children were provided with nursing service, fifteen more than in 1943.

During 1944, 443 tests were given in Wichita county for mastitis and 1,183 for contagious abortion among dairy herds of the area. The health unit laboratory, in 1944, made 6,196 tests in connection with the venereal disease control program, finding 644 positive cases.

The Wichita County Health Unit report commends especially general sanitation efforts made during the past year, stressing particularly the annual rat extermination campaign sponsored by the Junior Chamber of Commerce, which organization raised more than $1,100 for that work.

Dr. E. W. Prothro, acting director of the San Angelo-Tom Green County Health Unit, urges physicians of San Angelo to investigate penicillin treatment for infectious venereal diseases cases, according to the San Angelo *Standard.* In a letter addressed to all San Angelo physicians, Dr. Prothro stated that at the recent national venereal disease conference it was the consensus of leading venereologists that penicillin is the most promising form of

treatment now available for early syphilis and gonorrhea. The United States Public Health Service, which maintains sixty-three quick treatment centers, including five in Texas, has treated more than 200,000 cases, according to Dr. Prothro. He further stated that with penicillin, gonorrhea can be rendered noninfectious in less than one day and syphillis becomes noninfectious in eight days. Dr. Prothro pointed out that persons unable to pay fees now charged for penicillin treatment may be referred to the health unit where arrangements will be made to transfer them to one of the State quick treatment centers where services are free.

Discoverer of Rh Factor Texas Visitor.—Dr. Phil Levine, medical director of the Ortho Research Foundation and discoverer of the Rh factor, recently addressed members of the Houston Pediatric, Obstetrical and Gynecological, and Harris County Medical Societies in the Harris County Medical Society auditorium, Houston. Dr. Levine gave a detailed account of the history leading to the discovery of the Rh factor and its clinical application in medical practice, with special reference to erythroblastosis fetalis, jaundice and anemia of the new born. Dr. Levine also addressed the faculty and students of the Baylor University College of Medicine, Houston. While in Houston, Dr. Levine was the guest of Dr. Karl John Karnaky.

The State Health Department Mobile Blood Collection Unit visited the Lower Rio Grande Valley recently and made notable collections in La Feria and Harlingen. On February 20, 180 persons donated blood in La Feria, and on February 21, there were 250 donors in Harlingen. In each of the cities, the project was conducted under the sponsorship of the Rotary Club, with Dr. Heinrich Lamm of La Feria and Mr. Dan Murphy of Harlingen serving as local chairmen of committees of arrangement. The Red Cross, local newspapers and local radio stations rendered valuable assistance, as did the Presbyterian Church in La Feria and the Methodist Church in Harlingen, which furnished rooms for the work. Cots were loaned by the quartermaster of the Harlingen Army Airfield.

The collection resulted in about 100 units of plasma for the plasma bank of the State Health Department, Austin, which will be available for emergency use throughout the state, and in about 330 units of plasma for the use of anyone needing plasma in the La Feria-Harlingen area. It is estimated that a corresponding amount of plasma commercially prepared would cost about $10,000. Dr. Heinrich Lamm, commenting on the project, pointed out that it is deserving of all possible support.

The Texas Radiological Society held its thirty-second annual meeting January 20, at Temple, with Dr. Palmer E. Wigby of Houston, president, presiding. Dr. Wigby gave the presidential address, and introduced the guest speaker, Dr. Arthur W. Erskine of Cedar Rapids, Iowa. The following scientific program was presented:

Transvaginal X-Ray Therapy of Cancer of the Cervix.—Arthur W. Erskine, M. D., Cedar Rapids, Iowa.
(Discussed by C. L. Martin, M. D., Dallas, and J. J. Faust, M. D., Tyler.)

Problems in the Handling of Advanced Carcinoma of the Face.—C. L. Martin, M. D., Dallas.
(Discussed by J. V. Johnson, M. D., Galveston, Asa E. Seeds, M. D., Dallas, and A. W. Erskine, M. D., Cedar Rapids.)

A Review of Therapeutic Experiences Over the Past Four Years, With Special Reference to 400 K. V. and Other Technical Features.—Asa E. Seeds, M. D., Dallas.
(Discussed by V. W. Ramsey, M. D., Abilene, and Davis Spangler, M. D., Dallas.)

War Wounds of the Chest.—Lieutenant Colonel Glenn D. Carlson, M. C., Fort Sam Houston.

The Roentgenologic Interpretation of the Pathologic Changes in Osteomyelitis.—Lieutenant Colonel D. M. Earl, M. C., McCloskey General Hospital, Temple.
(Discussed by M. L. Mazer, M. D., Dallas, Dalton Richardson, M. D., Austin, and C. L. Martin, M. D., Dallas.)

Basal Pleural Fluid Accumulations Resembling Elevated Diaphram.—Major Dean B. Jones, M. C., Regional Hospital, Camp Maxey.
(Discussed by J. R. Maxfield, Jr., M. D., Dallas, R. P. O'Bannon, M. D., Fort Worth, A. C. Bergfeld, M. D., New Braunfels, and Dalton Richardson, M. D., Austin.)

Medical and Hospital Insurance Problems.—Arthur W. Erskine, M. D., Cedar Rapids, Iowa.
(Discussed by Davis Spangler, M. D., Dallas, C. L. Martin, M. D., Dallas, Dalton Richardson, M. D. Austin, E. V. Powell, M. D., Waco, and Asa Seeds, M. D., Dallas.)

During a business session, the constitution and by-laws were revised in accordance with amendments prepared by a committee appointed for the purpose.

The Society voted, also, that no dues would be charged any members now serving in the Armed Services.

Officers for the ensuing year were elected as follows: Dr. T. B. Bond, Fort Worth, president; Dr. Herman Klapproth, Sherman, president-elect; Dr. C. A. Stevenson, Temple, first vice-president; Dr. Asa E. Seeds, Dallas, second vice-president; Dr. R. P. O'Bannon, Fort Worth, secretary and treasurer; Dr. R. C. Wilson, Austin, historian.

The annual banquet was held in the evening on the mezzanine floor of the Kyle Hotel.

The time and place of the next meeting will be determined by the executive committee.

The Texas Society of Pathologists held its annual meeting January 28, at Southwestern Medical College, Dallas, with A. H. Braden, Houston, president, presiding. During the morning session reports of progress were received from several major committees of the society.

The committee on standardization of laboratories, which committee represents the society in coöperation with the Texas State Board of Health in the conducting of tests for the evaluation of serodiagnostic studies, in which more than 100 laboratories participate, reported that throughout the years there has been a marked increase in the quality of serodiagnostic tests in Texas laboratories.

The coroner's committee, of which Dr. J. Harvey Black of Dallas is chairman, and which has for a number of years been studying the problem of adequate medical examination services in coroner cases, reported that a model bill had been prepared providing for the services of qualified, trained medical examiners in the larger communities and for consulting services in smaller communities through a central division in Austin. The bill was approved by the society, and if enacted into law, should bring about a marked improvement over the present inadequate and unsatisfactory examinations in coroner's cases as conducted by justices of the peace.

The committee on scientific awards recommended that no awards be made for the duration of the war and the recommendation was unanimously approved.

A committee of which Dr. May Owen of Fort Worth is chairman, appointed to prepare a set of loan slides for donation to the library of the State Medical Association, reported that the committee was working on three collections of slides; first, slides for the use of specialists in preparing for American Board examinations; second, various pathologic conditions of interest to general practitioners; and third, collection of unusual and interesting material from the field of oncology, of primary interest to pathologists. When the sets of slides are completed, they will be donated by the society to the library of the State Medical Association for lending to its members.

The committee on medical technologists, of which Dr. J. M. Hill of Dallas is chairman, reported that the North Texas State Teachers College, Denton, had recently inaugurated a course in medical technology in conjunction with Terrell's Laboratories, Fort Worth, leading to degree of Bachelor of Science in Medical Technology, which course had been approved

by the American Medical Association. Another state supported college continues to give non-approved training in medical technology instead of coördinating such teaching with a medical institution, which would lead to approval of its course.

Dr. Violet H. Keiller of Houston was unanimously elected to membership on the recommendation of the membership committee, of which Dr. Paul Brindley of Galveston is chairman.

The society also voted unanimously to affiliate with the Texas Academy of Science.

A new committee was created to investigate the problem of legal consent for autopsy in Texas and the relationship between morticians and autopsy surgeons.

The following officers were elected to serve the society for the ensuing year: Dr. May Owen, Fort Worth, president-elect; Dr. Paul Brindley, Galveston, president; Dr. Sidney W. Bohls, Austin, vice-president; Dr. John J. Andujar, Fort Worth, secretary-treasurer (re-elected); Dr. Charles T. Ashworth, secretary-treasurer elect.

The next meeting of the society will be held January 27, 1946, in Dallas.

During the afternoon, a tumor seminar was presented as follows:

Wilm's tumor—John M. Moore, M. D., San Antonio.
Adenoma of kidney—John M. Moore, M. D., San Antonio.
Myxomatous fibroma of mesentery, benign—A. O. Severance, M. D., San Antonio.
Granulosa cell tumor—A. O. Severance, M. D., San Antonio.
Nerve sheath sarcoma—John J. Andujar, M. D., Fort Worth.
Sweat gland adenoma—Stuart Wallace, M. D., Houston.
Mixed tumor—J. F. Pilcher, M. D., Corpus Christi.
Lymphosarcoma in skin—B. F. Stout, M. D., San Antonio.
Rhinoscleroma—Paul Brindley, M. D., Galveston.
Eosinophilic granuloma—Paul Brindley, M. D., Galveston.
Paraganglioma or granular myxoblastoma—W. L. Sheppeard, M. D.
Rhabdomyoblastoma—G. T. Caldwell, M. D., Dallas.
Rhabdomyosarcoma—J. M. Hill, M. D., Dallas.

University of Texas Medical Branch News.—Dr. J. A. Bargen of the Mayo Clinic, Rochester, Minnesota, spoke on "Modern Concepts of Intestinal Infection" on February 26, at the University of Texas Medical Branch, Galveston. Doctor Bargen's lecture was under the auspices of the Phi Chi Medical Fraternity.

The annual Phi Beta Pi Medical Lecture at the University of Texas Medical Branch, Galveston, will be given by Doctor Walter Alvarez of the Mayo Clinic, Rochester, Minnesota, on March 2. Dr. Alvarez will speak on "Nervous Indigestion."

The University of Texas Child Health Program under the direction of Doctor Arild Hansen of the Department of Pediatrics, Galveston, will present in coöperation with the Texas Section of the American Academy of Pediatrics, the Texas Pediatric Society, the Texas Society for Mental Hygiene, the Hogg Foundation of the University of Texas, and the Children's Division of the State Department of Public Welfare, a Pediatric Conference on psychologic and psychiatric problems in children on March 9 at the Hotel Stephen F. Austin, Austin, Texas. The guest speakers will be Dr. James S. Plant, director of the Essex County Juvenile Clinic, Newark, New Jersey; Dr. Milton E. Kirkpatrick, director of the Guidance Center of New Orleans, and Dr. John H. Waterman, director of the Guidance Center of Houston.

The William Buchanan Lecture of the University of Texas Medical Branch, Galveston, will be given on March 5 by Dr. James S. Plant, director of the Essex County Juvenile Clinic, Newark, New Jersey. Dr. Plant will discuss the principles of management of psychologic problems in children.

A special series of seminars on the structural units of the nervous system are being presented by members of the Anatomy Laboratory of the University of Texas Medical Branch, Galveston, on Wednesday afternoons through March. These seminar sessions are opened to members of the profession and scientists who care to attend.

Medical and Surgical Relief Committee Donations.—Mr. Arthur Kunzinger, treasurer of the Medical and Surgical Relief Committee, announced recently that for the six-month period ending December 31, 1944, the Committee's donations to twenty-one countries including the United States, amounted to $43,669.87.

The territory covered by the Medical and Surgical Relief Committee has increased as the number of liberated countries has increased, and contributions now reach France and Italy. United States tops the list of beneficiaries with $16,386.48 worth of medical, surgical and dental supplies of which the U. S. Navy got $3,542.13, the U. S. Army $1,025.40, and various civilian hospitals and welfare agencies the balance of $11,818.95. The greatest number of shipments for this period went to China and India, while the most valuable single contribution amounting to $4,951.76 went to L'Entre Aide Francaise for the relief of French children.

The Medical and Surgical Relief Committee is distinguished by its adherence to two principles: (1) No authentic appeal is ever turned down, and (2) medical aid is the only form in which aid is given. Contributions of medical, surgical and dental supplies and instruments will soon reach the $700,000 mark. The exact figure to date is $690,715.60.

Military Personals

Major Emil P. Reed, M. C., A. U. S., was among those rescued by American Rangers from a Japanese prison camp on Luzon the night of January 30, advises the Dallas *Times Herald*. Major Reed was a practitioner in Brownsville before entering the Army in December 1940. He was sent overseas in January 1941, and was captured at Bataan. Mrs. Reed and three children are now making their home in Dallas.

Lieutenant C. A. Dwyer, M. C., U. S. N. R., of Houston, was liberated when American troops captured the Santo Tomas prison camp in Manila, according to dispatches from the Philippines, states the Houston *Press*. Lieutenant Dwyer served his internship at Jefferson Davis Hospital and was on the staff of that institution before entering service. He was attached to the Marine Corps shortly after Pearl Harbor, and sent overseas in 1941. He was on duty in a Manila hospital when that city was captured by the Japanese.

Dr. Paul B. de Mesquita of Orange, was recently tendered a commission in the United States Naval Reserve, and was ordered to report to the United States Naval Station at Corpus Christi, March 19, 1945.

Dr. Allen Robbins who completed his internship at Medical and Surgical Memorial Hospital, San Antonio, January 15, was ordered to active service in the Navy, reporting to San Diego, January 30.

Dr. John Osborn, who completed his internship January 1, at the Medical and Surgical Memorial Hospital, San Antonio, reported to Carlisle Barracks, Pennsylvania, January 15, for service with the Medical Corps of the United States Army.

Major Robert Lee Hargrave, Wichita Falls; *Major David Robert Sacks*, San Antonio; *Major Charles Aaron Ault, Jr.*, Dallas, and *Major William Fielding Spiller*, Galveston, were recently promoted to the rank of Lieutenant Colonel in the Medical Corps, Army of the United States, informs the Office of the Surgeon General.

Captain Clyde R. Harvill, SnC, of Houston, Texas, has recently been awarded a certificate of merit for his work in restoring the city water system in Brittany. The citation declares that Captain Harvill, "during the period of August 11 to November 30, 1944, by indefatigable effort and devotion to duty,

restored city water systems rendered almost useless and highly contaminated as a result of combat destruction . . . He thus ensured adequate and potable supplies of water, removed a great source of danger to United States and Allied forces and contributed greatly to the success of military activities in the Brittany peninsula."

Captain Harvill was born in Cornhill, Texas, and attended Texas University. He worked for many years in public health and sanitary engineering, and wrote many technical articles on water supply systems. Prior to his entrance into the army, Captain Harvill was a sanitary engineer in the city water department of Houston. He entered the Army in October of 1942.—*S. G. O. Notes*, Jan. 31, 1945.

PERSONALS

Dr. N. D. Buie of Marlin was unanimously elected president-elect of the National Federation of Medical Examining Boards at the meeting of that group in Chicago, February 13.

Dr. J. N. Thomas of Mansfield was the honoree at a dinner January 12, celebrating his eighty-eighth birthday and fifty-sixth year of service as a physician to Mansfield and surrounding area. Tribute was paid to Dr. Thomas by Commissioner Thannisch for his service to humanity, to the community and the county. Dr. Thomas was honored in 1943 by the Business and Professional Women's Club of Mansfield as the "Outstanding Citizen of the Community." Dr. Thomas is still active in practice.—*Mansfield News*.

Dr. H. P. Ledford, Wichita Falls, was recently elected to the board of trustees of the Wichita Falls Independent School District, succeeding the late Dr. George T. Singleton, advises the Wichita Falls *Record-News*. Dr. Ledford has been particularly active in work for underprivileged children. He is a past president of the Optimist Club and a member of the Y. M. C. A. board.

Dr. J. Frank Clark, Georgetown, has been named director of the Central Texas Health Department, succeeding the late Dr. A. E. Ballard, reports the Belton *Bulletin*. Dr. Clark has been serving as assistant director since October 1. The unit covers Belton, Coryell, Williamson and Lampasas Counties.

Dr. Jewel Daughety of Brownwood was recently presented with the 25-year scout pin by G. N. Quirl, Comanche Trail Council Boy Scout executive. The pin was presented to Dr. Daughety while a seriously ill patient in the Hermann Hospital at Houston. Dr. Daughety helped to organize the Boy Scout council of the Brownwood area and had previously received the silver beaver award for conspicuous service to scouting.—*Brownwood Bulletin*.

Dr. W. H. Harris, Raymondville, was recently appointed health officer of Willacy County, states the Willacy *News*.

Dr. G. N. Lancaster, Granbury, was recently named health officer of Hood County, reports the Hood County *Tablet*.

Dr. B. L. Jordan of Daisetta was reappointed health officer of Liberty County, advises the Cleveland *Advocate*.

Dr. C. G. Swift of Cameron was recently named health officer of Milam County, reports the Cameron *Enterprise*.

Dr. Sam J. Aaronson was recently named health officer of Potter County, informs the Amarillo *Globe*. The Commissioners' Court renamed *Dr. B. M. Puckett* and *Dr. Guy M. Owens* as members of the Potter County hospital board. Dr. Aaronson recently returned to civilian practice from service in the Medical Corps of the Army.

Dr. Fred R. Lummis of Houston was recently named chairman of the city health board of Houston, succeeding Dr. E. L. Goar, who resigned to devote more of his time to Baylor University College of Medicine, states the Houston *Chronicle*.

MARRIAGES

Dr. H. L. Wilder of Clarendon was married to Miss Nina Boyett January 13, 1945.

Dr. Alvin Beyer, Jr., intern at Hermann Hospital, Houston, was married January 27, to Miss Mary Tom Luton of Grand Prairie.

SOCIETY NEWS

Baylor-Knox-Haskell Counties Society

January 9, 1945

Baylor-Knox-Haskell Counties Medical Society met January 9, in the offices of Dr. D. C. Eiland, Munday.

Officers for 1945 were elected as follows: president, R. K. Lowry, Seymour; vice president, L. F. Taylor, Haskell; secretary, R. L. Newsom, Munday; delegate, T. S. Edwards, Knox City.

John F. Bunkley, Seymour, was elected to honorary membership.

Big Bend Counties Society

January 9, 1945

The Big Bend Counties Medical Society (Pecos-Jeff Davis-Presidio-Brewster) met January 9, at Alpine, and elected the following officers for 1945: president, Lewis A. Lavanture, Marfa; secretary, Joel Wright, Alpine.

Lewis A. Lavanture and Joel Wright were chosen members of the Legislative Committee.

Bowie County Society

January 19, 1945

Rheumatic Fever and Rheumatic Heart Disease—George W. Parsons, Texarkana.

Foreign Bodies in the Larynx: Case Report—A. W. Roberts, Texarkana.

Bowie County Medical Society held a joint meeting January 19 with the Miller County Medical Society of Arkansas, at the Hotel McCartney, Texarkana. The scientific program as given above was carried out.

Officers for 1945 were elected for the Bowie County Medical Society, as follows: president, C. H. Frank, Texarkana; vice-president, J. H. Rives, Texarkana; second vice-president, E. B. McGee, New Boston; secretary, Frances Spinka, Texarkana.

Dallas County Society

January 4, 1945

(Reported by W. W. Fowler, Secretary)

The Dallas County Medical Society held its annual dinner meeting January 4, at the Dallas Athletic Club, with 171 members and twenty-nine visitors present.

Following the dinner, David W. Carter, Jr., extended a welcome to all visitors present, especially medical officers of the armed services, and introduced the following: Brigadier General J. A. Bethea, Commanding Officer, McCloskey General Hospital, Temple; Colonel W. Lee Hart, Chief Medical Officer, Eighth Service Command, Dallas; Colonel T. L. Bliss, Commanding Officer, Ashburn General Hospital, McKinney; Holman Taylor, Executive Secretary, State Medical Association, Fort Worth; N. D. Buie, past president, State Medical Association, Marlin; L. S. Thompson, newly elected vice-president Dallas County Medical Society; and Jack G. Kerr, chairman of the program committee. Dr. Carter then presented Hall Shannon, chairman of the Board of Censors, Dallas County Medical Society. Dr. Shannon presented W. W. Fowler with twenty-five silver dollars as an honorarium for twenty-five years of service as secretary and treasurer of the Dallas County Medical Society.

Curtice Rosser then presented and moved the doption of resolutions pledging the membership of Dallas County Medical Society to those among its

members who are now courageously engaged in the armed services of their country, extending heartfelt greetings and best wishes to them, and assuring them emphatically that members of the society will do everything in their power to keep their names alive, and reputations intact, and to be prepared so that when they return to Dallas, they shall be aided in complete restoration of their former professional activities. The resolutions further provided that a copy should be forwarded to each member now in the service. They were unanimously adopted.

Dr. Carter then presented the gavel to the incoming president, G. E. Brereton, who presided for the remainder of the meeting. Dr. Brereton presented Lieutenant Colonel H. M. Winans, principal speaker of the evening, who addressed the society on the subject, "The probable Effect of the War on Medical Practice in the Future."

January 25, 1945

Symposium on Recent Advances in our Knowledge of Liver Function:
(a) The Physiological Functions of the Liver and their Evaluation (Lantern slides)—Arthur Grollman, Dallas.
(b) The Relationship of Acute Hepatic Injury to Chronic Liver Disease—James H. Baxter.
(c) Preparation of the Patient with a Damaged Liver for Operation—H. Walton Cochran.

Dallas County Medical Society met January 25, 1945, in the Medical Arts Auditorium, Dallas, with sixty-three members and nine visitors present. G. E. Brereton, president, presided, and the scientific program as given above was carried out.

The symposium was discussed by Martin F. Mason.

New Members.—Fred W. B. Rockett, Ona Mae Ricketts Austin, and Captain Nathan Tobolowsky, M. C., were elected to membership on application.

C. W. Kelly and Thomas Eugene Kelly were elected to membership by transfer from the Brown-Comanche-Mills and Orange County Medcial Societies, respectively.

M. O. Rouse announced that Dr. Tom Spies, professor of medicine at the University of Cincinnati, would deliver a lecture to the Phi Beta Pi fraternity February 6, and moved that the society merge its first meeting in February with this meeting and hold it in conjunction. The motion carried.

Gray-Wheeler Counties Society

January 18, 1945

(Reported by H. L. Wilder, Secretary)

Protruded Intravertebral Disc—J. W. Hendrick, Amarillo.
Cesarean Section (Motion Picture)—Shown through the courtesy of Davis and Geck.

Gray-Wheeler Counties Medical Society met January 14 at the Court House Cafe, Pampa. Following dinner, the scientific program as given above was carried out, with nine members and two visitors present. Dr. Hendrick illustrated his talk on the "Protruded Intravertebral Disc" with lantern slides, and stressed particularly diagnostic points.

Hardin-Tyler Counties Society

January 9, 1945

Hardin-Tyler Counties Medical Society met January 9, at the Cariker Hotel, Kountze, with a good attendance of members present.

Officers for 1945 were elected as follows: president, W. W. Anderson, Kountze; vice-president, John Knight, Voth; secretary, J. W. Poshataske, Silsbee; delegate, Watt Barclay, Woodville; alternate delegate, A. W. Roark, Saratoga.

Hidalgo-Starr Counties Society

January 11, 1945

(Reported by Ottis Walker, Secretary)

Nutrition (Motion Picture)—H. A. Newsom, Edinburg.

Hidalgo-Starr Counties Medical Society met January 11, at the Edinburg Hotel. The Auxiliary held a joint meeting with the society for the purpose of viewing an interesting and instructive motion picture film presented by H. A. Newsom of Edinburg, on the subject of nutrition, with special reference to the use of vitamins in the treatment of vitamin deficiency diseases. Twenty physicians were present, of which number seventeen were members and three visitors.

February 8, 1945

The Use of Cotton Suture Material in Surgery—W. E. Whigham, McAllen.

Hidalgo-Starr Counties Medical Society met February 8, in the Cactus Tea Room, Mission, with twenty members present. W. E. Whigham of McAllen spoke on the use of cotton suture material in surgery, and his talk was discussed by O. Garcia of McAllen.

Hunt-Rockwall-Rains Counties Society

January 9, 1945

(Reported by Harriet Rogers, Secretary)

Clinical Case Reports: (a) Sulfadiazine Blockage of the Ureter—H. W. Maier, Greenville; (b) Acute Mastoid Operation—J. W. Ward, Greenville.
The Uses of and Limitations of the Sulfonamides and Penicillin—Arthur Grollman, Dallas.

Hunt-Rockwall-Rains Counties Medical Society met January 9, at Greenville, with Joe Becton, president, presiding. The scientific program as given above was carried out.

Arthur Grollman in discussing the uses and limitations of sulfonamides urged that four general principles be kept in mind: (1) the possibility of serious toxic reactions resulting from an allergic tendency induced by their repeated use for such conditions as the common cold and minor infections; (2) the selection of the most appropriate drug for every infection, such as sulfanilamide for streptococcic infections, especially if accompanied by renal diseases; sulfathiazole for gram negative staphylococcic infections and mixed infections; sulfadiazine for pneumococcic infections and meningitis as the most effective and least toxic of the sulfa drugs; sulfasuxidine for gonococcic infection; (3) that the use of the sulfa compounds is bacteriostatic, and they must be given in adequate dosage to overwhelm bacteria before they develop; (4) toxic reactions are decreased by keeping the urinary output to 1,200 cc. and watching the urine daily for gross crystals when cold.

Dr. Grollman pointed out that penicillin is also bacteriostatic and must be given in adequate dosage. It is a drug of choice in (1) staphylococcic infections especially bacteremias; (2) streptococcic infections, such as empyema, collections of pus and purulent wounds. Neither sulfa nor pencillin are of value in virus infections.

W. W. Looney was elected to membership by transfer from the Dallas County Medical Society.

At the meeting every member present paid 1945 dues of $23.00.

Members also paid military membership dues for the various members in the service: E. T. Crim (paid by S. D. Whitten; W. M. Dickens (paid by Joe Becton); J. J. Handley (paid by W. C. Morrow); L. W. Sayler (paid by Harriet Rogers); J. R. Smith (paid by R. W. Jenks); O. H. Trimble (paid by H. W. Maier); E. R. Hayes (paid by W. C. Morrow).

Hutchinson-Carson Counties Society

January 17, 1945

Hutchinson-Carson Counties Medical Society met January 17, and elected the following officers for 1945: president, L. C. Hanson; vice-president, M. C. Kimball; secretary, M. M. Stephens; delegate, L. E. Petty; alternate delegate, M. C. Kimball; legislative committee, H. M. Hamra, W. W. Brooks and W. C. Barksdale; board of censors, C. K. Bivings, L. C. Hanson and L. E. Petty.

Palo Pinto-Parker Counties Society

January 9, 1945

(Reported by E. M. Russell, Secretary)

Treatment of Minor Ailments with X-Ray—A. L. Roberts, Fort Worth.

Postpartum Hemorrhage: Case Report—W. B. Lasater, Mineral Wells.

Palo Pinto-Parker Counties Medical Society met January 9, at the Roan Clinic, Weatherford. The scientific program as given above was carried out. E. F. Yeager gave an interesting discussion of the paper presented by A. L. Roberts on the treatment of minor ailments with x-ray.

The case of postpartum hemorrhage reported by W. B. Lasater occurred in a negro woman, aged 18.

Smith County Society

January 11, 1945

(Reported by Wm. M. Bailey, Secretary)

Early Ambulation—John V. Goode, Dallas.

Practical Points in the Use of the Sulfonamides and Penicillin—Arthur Grollman, Professor of Experimental Medicine, Southwestern Medical College, Dallas.

Smith County Medical Society met January 11. The scientific program as given above was carried out.

John V. Goode, in discussing the subject of early ambulation, suggested that surgical patients should be gotten out of bed as soon as possible. He asserted that at the present time because of the improved technique of handling tissues, improved surgical material and improved medical procedure the abdominal wound is stronger immediately following the operation than it is a week or ten days later; that through early ambulation the tone of the body is improved which promotes more rapid convalescence. A series of statistics supporting these contentions was presented.

Arthur Grollman, in discussing the use of sulfonamides and penicillin, cautioned against their promiscuous employment. He emphasized that many conditions improved under old regimes as well as under sulfonamides, and that sulfonamides should not be given full credit for many recoveries which would obtain under other methods of treatment. Small doses sensitize patients to the drug so that it should be used only in adequate doses. These drugs, while they have a general bactericidal action, still have a degree of specificity. This should be recognized in prescribing the drug. However, despite specificity one compound may be inefficient in a given infection, yet another will be effective; so if no results are obtained from one within twenty-four hours, one should change to another.

These substances do not act as bactericidal. They are bacteriostatic, hindering the multiplication of the bacteria, thus allowing the body to overwhelm a smaller concentration of the infection. Hence the advisability of obtaining an early concentration.

In penicillin, many of the objections to the sulfonamides are absent. Any reaction is due to impurities of the drug. At present, 50 per cent of the drug is impurities. The nontoxity of the drug is due to absence of the benzine ring. There is a certian synergism between the sulfonamides and penicillin. Penicillin is effective in the presence of pus, whereas the sulfonamides are not. Dr. Grollman predicts that penicillin will in time replace the sulfonamides.

A committee from the Chamber of Commerce presented the proposition of a non-profit organization looking toward the post-war industrialization of Tyler and invited members to join in the movement. A committee was appointed to coöperate.

The society voted to pay the medical defense dues of all members in the service.

A communication from the Library Endowment Committee of the State Medical Association was read, but following a general discussion, it was unanimously voted that funds would be solicited from the membership for the establishment of a County Medical Society Library in Tyler.

February 8, 1945

Meckel's Diverticulum Differential Diagnosis—Major Chester Guernsey, Chief General Surgical Section, Harmon General Hospital, Longview.

Torsion of the Spermatic Cord—Major Max Moulder, Chief Urological Section, Harmon General Hospital, Longview.

Vaginal Hysterectomy—Major Leon F. Moldavsky, Chief Septic Surgical Section, Harmon General Hospital, Longview, Texas.

Smith County Medical Society met February 8, in the library of the Mother Frances Hospital, Tyler, with sixteen members and three visitors present. The scientific program as given above was carried out.

Major Guernsey, in discussing the differential diagnosis of Meckel's diverticulum stated: Meckel's diverticulum is an abnormal remnant of a fetal structure, the omphalomesenteric or vitelline duct. In most cases, this structure disappears but it is found in some 1.5 to 2 per cent of routine postmortem examinations in the adult. There are three principal pathological conditions of Meckel's diverticulum which require surgical intervention. These are infection, hemorrhage, and intestinal obstruction.

From the practical standpoint, the main consideration is that if the surgeon makes the diagnosis of acute appendicitis, operates, and finds the appendix to be essentially normal, he should certainly look for a Meckel's diverticulum before closing the abdomen.

In one case a tentative diagnosis of hemorrhage from a Meckel's diverticulum was made preoperatively because of the severe hemorrhage and the absence of any findings on complete study of the gastrointestinal tract.

Meckel's diverticulum is found to be the chief causative factor in about 3 per cent of acute mechanical obstructions in the small bowel. The intestinal obstruction may be of the simple or the strangulated variety. Most of the symptoms and findings of this type of intestinal obstruction are those of any bowel obstruction. However, there are certain features in these cases of Meckel's diverticulum which sometimes allow a preoperative diagnosis to be made.

One case of intestinal obstruction due to an intussusception caused by Meckel's diverticulum was encountered by the essayist in another army hospital.

The other case of Meckel's diverticulum causing intestinal obstruction seen in the Harmon General Hospital was one in which the obstruction was caused by the formation of scar tissue leading to an inflammatory stricture of the bowel.

While surgical conditions of Meckel's diverticulum are not common, they are certainly not rare. One should continually keep this structure and its pathological possibilities in mind whenever the abdominal cavity is opened.

Major Moulder, in discussing "Torsion of the Spermatic Cord," stated: Torsion of the spermatic cord occurs frequently enough in urologic practice to warrant its being kept in mind in dealing with any enlargement or pain in the testis. Since the first authentic case report in 1840, it is surprising that an accurate diagnosis is not more frequently made. Up through May 1944, 489 cases have been reported in the literature, in 26 of which the condition was bilateral. Undoubtedly many other cases of torsion of the cord have occurred, but have remained unproved or unreported. Many cases undoubtedly are not reported because of the supposed shame of a missed diagnosis.

Although torsion of the cord has been known to occur at birth and has been reported in a man of 68, the great majority occur between the ages of 10 and 40. The right and left testis are involved with about equal frequency. The consensus of opinion is that torsion never occurs with a normal testis, Some

anomaly of the external genitalia either of development or of situation exists as a predisposing cause. A cord that is too long or is attached in an unusual place will of course lend itself to being twisted. The gubernaculum may be absent, too long or too short and predispose to a twist. A tunica vaginalis which is roomy because of a high investment on the cord will allow the testis excessive mobility. A faulty attachment of the epididymis to the testis may afford the cord enough leeway to hang itself.

Whatever the predisposing cause, some exciting cause may be needed to provoke torsion, such as coughing, sneezing, sudden straining or injury—in fact anything that may cause a spasm of the cremasteric muscle. In many cases no exciting cause may be determined.

The actual twist of the cord may occur within the tunica vaginalis or outside of it. The former situation is far more common and more likely to occur in the fully descended testis. When such is the case, the testis and epididymis will be involved, but the tunica vaginalis will not. Most observers agree that the twist is usually clockwise with the left testis and counterclockwise with the right. The degree of torsion may vary anywhere from merely a part of one revolution to several complete turns. In the early stages of acute torsion there is some congestion and hemorrhage into the affected part. Shortly thereafter the entire area distal to and supplied by the vessel included in the twisted cord will be the seat of hemorrhagic infarction with edema of the surrounding structures, mainly the scrotal wall. The tunica vaginalis may remain dry or may contain strawcolored fluids. In complete acute torsion, cellular degeneration of the testis commences a short time after occlusion of the vessel and atrophy is the usual result if treatment is not immediately instituted. Gangrene is the turning point, after which attempts a revision must be superseded by orchidectomy.

A letter from Dr. J. M. Hill, director of the William Buchanan Blood Plasma and Serum Center was read, relative to the establishment of a blood bank in Tyler. A committee composed of Dr. Ross, Dr. Page and Dr. Willingham was appointed to investigate the matter and report back.

Dr. Young reported for the Library Committee and stated that the Carnegie Library management would very gladly handle the property of the Society. The library committee was empowered to purchase books and magazines as they saw fit.

Dr. McDonald, reporting for the Industralization of Tyler Committee said he had 100 per cent coöperation from physicians.

Tom Green Eight County Society

February 5, 1945

(Reported by Tom L. Husbands, Secretary)

Modern Nutrition (Colored, Sound Motion Picture Film).

Tom Green Eight County Medical Society met February 5 in the Indian Room of the Cactus Hotel, San Angelo, with eighteen members present. W. J. Swann, president, presided. The scientific program consisted of the showing of a sound motion picture film in color, dealing with the diagnosis and treatment of nutritional deficiencies. A discussion followed the showing of the film.

A communication from the Library Endowment Committee of the State Medical Association seeking funds for the endowment of the library of the Association was read. On motion of V. E. Schulze, it was voted that the president appoint a library committee for consideration of contributions to the library endowment fund.

J. M. Rape moved that the society pay the military membership dues of members in service, which motion was seconded by J. H. Smith and carried.

V. E. Schulze read a letter from President H. F. Connally, of the State Medical Association, concerning chiropractic legislation pending in the State Legislature. Dr. Schulze moved that the secretary wire Senator Penrose Metcalf expressing appreciation for his past interest in scientific medicine and requesting his help in defeating the passage of H. B. 29 and S. B. 57, attaching to the telegram the names of members of the society. The motion of Dr. Schulze was amended, providing that a copy of the telegram to Senator Metcalf be mailed to Representative Cecil Barnes.

Resolutions were adopted pertaining to election to honorary membership in the Society and State Medical Association of J. S. Hixson, John R. Sessums and J. K. Griffith, it being provided that a copy of the resolutions be sent to the State Association Secretary and R. E. Windham, Councilor of the Fourth District. It was pointed out that Drs. Hixson, Sessums and Griffith should pay their dues in the usual manner, which dues would be refunded after their election to honorary membership, with the exception of the $4.00 required for honorary membership dues.

President Swann presented the resignation of Tom L. Husbands as secretary.

W. Grady Mitchell was elected secretary to fill the vacancy created by the resignation of Dr. Husbands.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin. Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Bexar County Auxiliary held its first meeting of the year October 13, 1944, with a luncheon at the Gunter Hotel. Dr. J. W. Goode, president of the Bexar County Medical Society and Mrs. C. B. Alexander, president-elect of the State Auxiliary were the honor guests and speakers.

Bexar County Auxiliary honored new members and members whose husbands are in the armed services with a reception in the Medical Library, November 2, 1944.

Bexar County Auxiliary held its second regular meeting November 10, with a luncheon session at the Gunter Hotel. Mrs. S. E. Thompson, president of the State Auxiliary, and Dr. S. E. Thompson of Kerrville, were honor guests and speakers. The talks of Dr. and Mrs. Thompson were inspiring and greatly enjoyed.

Subsequent meetings of the Auxiliary have been held at the Medical Library in the form of buffet luncheons.

The following officers were elected at the February meeting: Mrs. Frank Steed, president; Mrs. T. A. Pressley, first vice-president; Mrs. Charles McGehee, second vice-president; Mrs. I. T. Cutter, third vice-president; Mrs. J. W. Goode, fourth vice-president; Mrs. J. A. French, recording secretary; Mrs. M. M. Dorbandt, corresponding secretary; Mrs. M. A. Ramsdell, treasurer; Mrs. I. C. Skinner, auditor; Mrs. P. I. Nixon, historian; Mrs. Robert Lee Rhea, Jr., publicity chairman.

Bowie-Miller Counties Auxiliary met January 26 at the home of Mrs. Reavis Pickett, Texarkana, with

Mrs. William Hibbitts as principal speaker. The subject of Mrs. Hibbitts' talk was "Medicine in World War II." It was pointed out that medical officers in World War II are working closer to the battle lines than ever before, that many surgical operations are being performed very near the front lines. The fact that soldiers are now furnished with medical kits which contain sulfa drugs and other live-saving medicinal agencies has greatly lowered mortality rates in World War II. Blood transfusions are given on the battlefield and wounded soldiers are treated for shock before they are moved, all of which has been conducive to lowered mortality rates. The splendid physical condition of Russian soldiers was credited to compulsory physical check-ups and hospitalization, and also to the fact that Russia is said to be free of venereal disease. Commendation was also given to the splendid accomplishments of dentists, nurses, and hospital aids in the present war and to the work of veterinarians in the sections where animals are still used in warfare.

Mrs. Allen Collom read an interesting letter from her husband, Major Allen Collom, now serving in a general hospital in the European theater of war.

Mrs. Ralph Cross gave a talk on amputations, describing the successful performance of amputations on battlefields, which have saved many lives in the various war theaters.

Mrs. R. R. Kirkpatrick presided at a business session in the absence of Mrs. J. T. Robison. Minutes were read by Mrs. Harry Murry, secretary, and the treasurer's report was given by Mrs. John H. Rives.

A social hour followed, with Mrs. R. R. Kirkpatrick pouring coffee and refreshments being served by the hostesses, Mesdames Hibbitts, Reavis and Karlton Kemp.

Dallas County Auxiliary has practically discontinued all social activities and efforts of its members are being directed to war work. Some members have been active with the War Activities Committee in entertaining convalescent soldiers from Ashburn General Hospital, McKinney, week-ends.

Proceeds from a silver shower in a December meeting netted $81.25, and were given to the Red Cross Camp and Hospital Committee. The Auxiliary voted a donation of $50.00 to the drive against infantile paralysis.

Individual members have contributed to the $3,000 being raised by various women's clubs to aid in establishing a blood bank for Parkland Hospital, Dallas.

Members were urged at the February meeting to write Senator W. C. Graves, urging him to vote against chiropractic bills pending in the legislature.

Fourteen new members have been added to the Auxiliary roll. The health education committee reported 650 physical examinations, including themselves and members of their families.

Members of Dallas County Auxiliary have been saddened by the loss of a charter member, Mrs. John S. Turner, who died in January. She was one of the most beloved members.—Mrs. Floyd S. Franklin.

Dewitt-Lavaca Counties Auxiliary met at a luncheon, January 27, in the home of Mrs. E. H. Marek, Yoakum, honoring Mrs. S. E. Thompson, Kerrville, state president.

Officers for 1945 were elected as follows: Mrs. Gillette Burns, Cuero, president; Mrs. A. J. Bohman, Cuero, secretary-treasurer; Mrs. E. H. Marek, Yoakum, president-elect; Mrs. L. B. S. Richter, Yoakum, first vice-president; Mrs. Harvey Renger, Hallettsville, second vice-president; Mrs. Marvin Duckworth, Cuero, parliamentarian.

Ellis County Auxiliary honored Mrs. S. E. Thompson, Kerrville, state president, with a luncheon February 8, in Waxahachie.

Mrs. Thompson gave an interesting talk on the importance of auxiliaries taking an active part in the fight against socialized medicine.

Mrs. S. H. Watson, Waxahachie, president of the auxiliary, presided at the meeting. A number of guests were present from Fort Worth and Dallas.

El Paso County Auxiliary held a tea recently in the home of Dr. and Mrs. B. F. Stevens, El Paso, honoring wives of medical officers stationed at William Beaumont General Hospital, Biggs Field Station Hospital and in El Paso. Mrs. Stevens and Mrs. W. J. Davis, president of the auxiliary, headed the receiving line.

Hardin-Tyler Counties Auxiliary met January 9, at Kountze, and elected the following officers for 1945: Mrs. J. W. Poshataske, president; Mrs. Watt Barclay, vice-president; Mrs. J. F. Shivers, secretary.

Harris County Auxiliary met January 29, at the Warwick Hotel, Houston.

Chester L. Bower, guest speaker, discussed youth services. Mrs. Peyton Barnes, hostess chairman, was assisted by Mesdames J. Norris Tucker, Charles Dickson, Truett Gandy, Ghent Graves, Frank Iiams, Forrest Jorns, H. Caplovitz, I. S. McReynolds, Walter Qualtrough, B. F. Smith and M. F. Strashun.

Henderson County Auxiliary met February 13 in the home of Mrs. L. L. Cockerell, Athens, who was assisted by Mrs. N. D. Geddie as hostess.

Mrs. R. H. Hodge presided during a business session. Plans were made to continue quarterly meetings during the coming year.

Each member present agreed to write to her state legislator and senator, requesting them to oppose certain dangerous legislation pending in the State Legislature.

Roll call responses were given on "What Is New in Medicine."

Helen Louise Barron, high school student, discussed the miracle drug, penicillin.

Mrs. W. T. Black talked on the value of refrigeration anesthesia in cases of gangrene.

Mrs. A. H. Easterling closed the program with a reading entitled, "The Touch of the Doctor's Hand."

Officers for the new year were elected as follows: Mrs. R. E. Henderson, president; Mrs. N. D. Geddie, vice-president; Mrs. C. M. Weekley, secretary-treasurer.—Mrs. C. M. Weekley, Secretary.

Hidalgo-Starr Counties Auxiliary met February 8, at Mission. Miss Nanna Smith of Edinburg, gave an interesting talk on the Kenny Treatment of poliomyelitis, and also discussed tuberculosis.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary met February 2, at the Nimitz Hotel, Fredericksburg. After luncheon, the group adjourned to Mrs. Victor Keidel's home for a business meeting, with Mrs. W. E. Gregg presiding.

Mrs. S. E. Thompson gave an interesting report on patch tests made in school children. Tests have been given at Hunt, Ingram and Center Point schools, and in the follow-up examinations, all children have shown improvement. The program is being enlarged in the future to include Catholic and Negro schools, and repeat tests will be given to Tivy School children.

Mrs. Thompson also reported the sum of $1,504 was secured from the sale of tuberculosis seals, and that one $1,000 bond had been purchased. The County Tuberculosis Association hopes to purchase another bond soon.

The Auxiliary voted to give $10.00 each to the Memorial Loan Fund and the Library Fund.

Mesdames Victor Keidel, S. E. Thompson and J. D. Jackson were appointed members of the nominating committee for the next year.

Liberty-Chambers Counties Auxiliary held its annual business meeting in the home of Mrs. A. L. Delaney, Liberty, January 11. The following officers

were elected: Mrs. A. L. Delaney, Liberty, president; Mrs. J. T. Tadlock, Dayton, vice-president; Mrs. Jack Bevil, Hull, secretary-treasurer; Mrs. Everett Sykes, Anahuac, parliamentarian.

Liberty-Chambers Counties Auxiliary met February 8, in the home of Mrs. A. L. Delaney, Liberty. Communications were read from officers and committee chairmen of the State Auxiliary.

The Auxiliary voted to donate $2.00 each to the student loan fund, memorial fund and library fund. The health film, "Contagious Diseases," will be shown in Liberty, Dayton and Daisetta.—Mrs. R. C. Bellamy, Secretary.

Nueces County Auxiliary is compiling a list of names of blood donors to be made available at all times to Corpus Christi physicians and hospitals for emergency treatment, as their first wartime project. Arrangements have been made for typing members of the Twenty-Eighth Battalion of the Texas State Guard and the members of the 20-30 Club. Others wishing to be placed on the list to be called when transfusions are needed, are requested to call Mrs. Y. C. Smith, a member of the Auxiliary, according to an announcement made in the Corpus Christi *Caller*.

Technicians from Spohn and Memorial Hospitals, Corpus Christi, are assisting in taking blood specimens, and laboratory work will be done by Terrell Laboratories, Corpus Christi. Mrs. C. P. Jasperson will be assisted by Mrs. C. F. Crain, Mrs. L. W. O. Janssen, Mrs. Y. C. Smith and Mrs. Turner Moller in registering and filing names. The file will be kept by Mrs. Howell Ward at the Physicians Exchange. Persons typed will be notified of the blood group to which they belong. Their index cards will show the times at which they may be conveniently called and the date of blood last given. Three months must elapse between donations of blood.

Tarrant County Auxiliary honored Mrs. S. E. Thompson, Kerrville, State President, with a luncheon at the Colonial Country Club, Fort Worth, February 9. Mrs. S. A. Price, president, presided at a brief business session.

Mrs. Thompson gave an interesting talk, stressing the value of friendship and fellowship among Auxiliary members. Among the special problems confronting the Auxiliary were mentioned health education and legislation. Mrs. Thompson urged members to oppose bills pending in the legislature which would lower the standards of medical education and practice, emphasizing particularly the efforts of chiropractors and naturopaths to secure legislation. Members were urged to write their legislators expressing opposition to such bills, and secure letters also from lay friends.

Prepaid medical care plans as proposed by the Blue Cross and similar groups were cited as examples of practical measure being used to combat compulsory sickness insurance under the direction of the federal government. Mrs. Thompson's earnestness and sincerity were inspiring. A number of out-of-town guests were present from Dallas, Waxahachie and Gainesville.

The Washington County Auxiliary met January 29 at the Hotel St. Anthony, Brenham, with Mrs. Robert A. Hasskarl, president, presiding. Following a luncheon a business session was held, and 1945-1946 officers were elected as follows: Mrs. C. E. Southern, president; Mrs. W. F. Hasskarl, vice-president; Mrs. S. E. Stafford, recording secretary; Mrs. Robert A. Hasskarl, corresponding secretary; Mrs. Arthur Becker, treasurer; Mrs. M. D. Burnett, reporter; and Mrs. W. F. Tottenham, parliamentarian.

It was voted at this meeting to give a book each month to the McCloskey General Hospital at Temple.

Mrs. C. E. Southern was in charge of the program, which included a splendid talk on dentistry by Mrs. S. E. Stafford, and interesting discussions of several current medical news events by Mrs. Roger E. Knolle and Mrs. W. F. Hasskarl.

Northwest Texas District Auxiliary met November 21, 1944, at the Woman's Forum, Wichita Falls. Luncheon was served to twenty-eight members and guests.

Mrs. W. P. Lowry, president of Wichita County Auxiliary, presided during the luncheon.

Mrs. R. W. Manar, program chairman, presented Miss Olin Hallmark, who gave vocal numbers, accompanied by Mrs. A. H. Mahaffey.

A business session of the district auxiliary followed the luncheon, with Mrs. B. W. Dorbandt presiding, in the absence of Mrs. E. Roy Townsend of Eastland, who was ill.

Officers for the district auxiliary were elected as follows: Mrs. E. Roy Townsend, Eastland, president; Mrs. L. C. Brown, Eastland, secretary-treasurer; Mrs. A. W. Brazda, Ranger, councilwoman.

DEATHS

Dr. **Harry Henderson Brown**, Sr., of Yoakum, Texas, died October 18, 1944, in a Yoakum Hospital, of coronary occlusion.

Dr. Brown was born December 14, 1860, in Fayette County, Texas, the son of Dr. and Mrs. John Duff Brown. His early education was received in the public schools of Fayette County and the Oakland Academy. His medical education was obtained at the University of Tennessee School of Medicine, from which he was graduated in 1891. He practiced medicine at Yorktown, Texas, for nine years following his graduation, and then moved to Yoakum, where he was in active practice until his death. Dr. Brown was associated with the San Antonio and Aransas Pass Railroad for many years in the capacity of assistant medical director and chief medical director, and when the line was taken over by the Southern Pacific, he became division surgeon and later consulting surgeon, which latter position he held until his death.

Dr. Brown was a member of the Dewitt County Medical Society, the State Medical Association and the American Medical Association. He served Dewitt County Medical Society as president in 1930. He was a member of the Eighth District Medical Society. During his professional career he had taken postgraduate work at the New York Polyclinic and clinics in Chicago and Rochester, Minnesota. He was an active member of the Methodist Church. He was greatly beloved by all who knew him.

Dr. Brown was married to Miss Sallie M. King, who died January 25, 1919. He is survived by one son of this union, Dr. Harry Henderson Brown, Jr., Yoakum. In 1921, Dr. Brown was married to Miss Mable V. Brennan of Yoakum, who survives him.

Dr. **John Edward Fleming** of Marshall, Texas, died January 8, 1945, in a Marshall hospital.

Dr. Fleming was born April 16, 1882, in Bradleton, Alabama, the son of John Wesley and Jimmie Hall Fleming. His academic education was received in the schools of Montgomery, Alabama and Monroe, Louisiana. His medical education was obtained in the St. Louis College of Physicians and Surgeons, from which he was graduated in 1919. During his professional career, he had taken postgraduate work at Tulane University, New Orleans, and in Chicago. He practiced for a number of years in Louisiana before locating in Texas. He had lived and practiced in Northwest Texas, and for twelve years in Denton and Montague Counties, before his removal to Henderson, Rusk County, after the discovery of oil in East Texas. In 1942, he moved to Waskom, Harrison County, where he was in practice

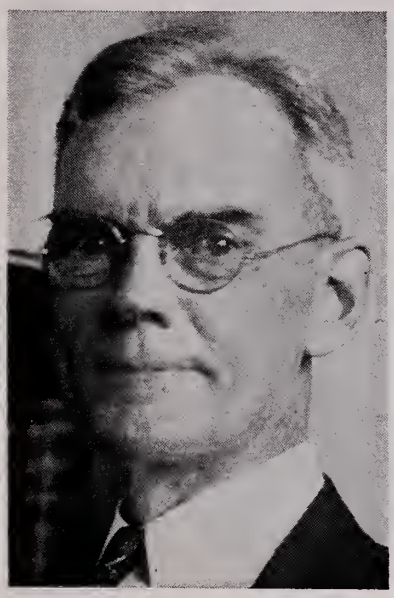
one year. He then located in Marshall, which was his home for the remainder of his professional life.

Dr. Fleming was a member for many years of the State Medical Association and American Medical Association through the county medical societies of his various places of residence. He was a member of the Southern Medical Association. He was a member of the Methodist Church, a thirty-second degree Mason, and a member of the Shrine. For many years he had taken an active part in Masonry. Early in his medical career he did general practice but for the past several years, he had confined his practice to office consultation. He had many friends in the various communities in which he had practiced.

Dr. Fleming was married May 31, 1906, to Miss Annie Edmonson of Monroe, Louisiana. He is survived by his wife; one sister, Mrs. W. A. Tarbutton of Monroe, Louisiana.

Dr. Branch Craige, El Paso, Texas, died December 31, 1944, at his home, of coronary thrombosis and myocardial infarction.

Dr. Craige was born July 14, 1877, in Salisbury, North Carolina, the son of Kerr and Josephine Branch Craige. His academic education was received in the schools of North Carolina and Washington, D. C. His medical education was received in the University of Colorado, the Davidson Medical School, Davidson, North Carolina, and the University of Maryland, Baltimore, from which last named institution he was graduated in 1909. Following his graduation, he served an internship in the Bayview Hospital, Baltimore, Maryland. He then served as resident physician in charge at the Robert Garrett Hospital, Baltimore, and was visiting physician to the University of Maryland and the Hebrew Hospital, Baltimore. In 1912, Dr. Craige moved to El Paso, Texas, where he was at first associated with a brother-in-law, Dr. W. C. Kluttz, then Health Officer of El Paso. Dr. Craige first did a general practice, consisting largely of obstetrics and pediatrics, but after postgraduate work at Johns Hopkins, had for many years limited his practice to pediatrics.



DR. BRANCH CRAIGE

Dr. Craige had been a member continuously in standing of the El Paso Medical Society, State Medical Association and American Medical Association from 1912 until his death. He was a member of the American Academy of Pediatrics. He was an active member of the El Paso City-County Board of Health and had been an outstanding advocate and exponent of modern health practices, having an important part in the establishing of compulsory diphtheria inoculation, standard milk ordinances, and other such preventive measures. He was held in the highest esteem by his medical associates and accounted a foremost citizen of El Paso. He was one of the founders of the baby sanitarium at Cloudcroft, N. M., and served that institution as director for many years. He was a member of the Episcopal Church, which institution he had served as a vestryman and a Junior Warden. He was a thirty-second degree Mason, being a member of the Scottish Rite and the Shrine.

Dr. Craige was married January 21, 1913, to Miss Elsa Kohlberg, daughter of a pioneer El Paso family. She preceded her husband in death, March 15, 1944. He is also survived by two sons, Captain Branch Craige, Jr., M. C. United States Army, Joliet, Illinois, and Captain Ernest Craige, M. C., United States Army, now serving overseas, and one sister, Mrs. John E. Ramsay, Salisburg, North Carolina. He was survived by a brother, Burton Craige, Winston-Salem, North Carolina, who died January 11, 1945.

Dr. S. Frank Gilbreath of San Antonio, Texas, died January 3, 1945, in a San Antonio hospital, of heart disease.

Dr. Gilbreath was born March 17, 1897, at Quitman, Texas, the son of Mr. and Mrs. S. W. Gilbreath. His academic education was received in the North Texas State Teachers College, Denton, Texas, from which he was graduated with a B. A. Degree in 1920. He was also graduated from Southern Methodist University, Dallas, with the B. S. Degree in 1923. His medical education was obtained in the University of Texas School of Medicine, Galveston, from which he was graduated in 1927. He then served an internship at Robert B. Green Hospital, San Antonio. He began the practice of medicine in San Antonio, which was his home for the remainder of his professional life.

DR. S. FRANK GILBREATH

Dr. Gilbreath had been a member continuously in good standing of the Bexar County Medical Society, the State Medical Association and American Medical Association from 1929 until his death. He was a thirty-second degree Mason, a member of Alzafar Temple, and of the Shrine. He was also a member of the Optimist Club. Dr. Gilbreath was held in high esteem by all who knew him.

He is survived by his wife, the former Miss Lesta Pierce, of Weatherford, to whom he was married December 19, 1920. He is also survived by three daughters, Ann, Frances and Patsy Sue; and three sisters, Mrs. L. L. Lipscomb, Quitman, Mrs. Arthur Cox, Sulphur Springs, and Mrs. L. O. Sullivan, Dallas.

Dr. Homer Wilford Gough of San Antonio, Texas, died September 21, 1944, at his home, of coronary occlusion.

Dr. Gough was born January 17, 1882, in Grand Prairie, Texas, the son of Dr. M. M. Gough and Lean C. (Summerville) Gough. His academic education

was received in the public schools and the University of Texas. His medical education was obtained at the University of Texas School of Medicine, Galveston, from which he was graduated in 1915. During his professional career, Dr. Gough had taken postgraduate work at Tulane University, New Orleans. Following his graduation, he served internships at St. Mary's Infirmary, Galveston, and the Santa Fe Hospital, Temple. He then accepted a position on the staff of the San Antonio State Hospital, where he remained for four years. He then lived and practiced at Killeen and Brownwood prior to his location in San Antonio, which was his home for the remainder of his professional life.

Dr. Gough was for many years a member of the State Medical Association and American Medical Association through the Brown County Medical Society while living at Killeen and Brownwood, and the Bexar County Medical Society after his location at San Antonio. During World War I, he served for two years in the Medical Corps of the United States Army, eighteen months of which service was overseas. He was a member of the Methodist Church and a Mason. He was held in high regard by all who knew him.

Dr. Gough was married January 30, 1918, in Douglas, Arizona, to Miss Joan Marie Davern of Tipperary, Ireland. He is survived by his wife and two sons, Homer George and Joe Hubert Gough, both of whom are now serving in the United States Navy. He is also survived by three brothers; Fred Gatesville, Joe S., Killeen, and Orris E., Carlsbad, New Mexico.

Dr. William Ansley Grant of Bardwell, Texas, died January 26, 1945, at his home, of pulmonary fibrosis.

Dr. Grant was born January 31, 1881, in Itasca, Texas, the son of James Allen and Mary Elizabeth (Smith) Grant. His academic education was received in the Itasca public schools and in Baylor University, Waco. The first year of his medical education was received in the University of Texas School of Medicine, Galveston, and and the last three years at the University of Nashville, Tennessee, from which he was graduated in 1905. He began the practice of medicine in Ellis County shortly after graduation. He had taken postgraduate work at Tulane University, New Orleans, and the Oklahomca University Medical School. In 1929 he specialized in psychiatry and was appointed staff member of the Wichita Falls State Hospital. He later held similar positions in Venita, Oklahoma, San Antonio, Texas, and Terrell, Texas.

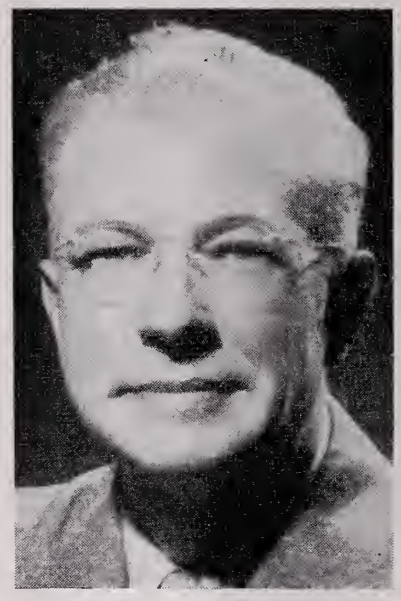
DR. W. A. GRANT

Dr. Grant was a member continuously in good standing from 1906 until the time of his death, of the State Medical Association and American Medical Association through the County Medical Societies of his various places of residence. He was a member of the Church of Christ, and of the Masonic order. Dr. Grant had been active in the civic development of Bardwell throughout his professional life. He was held in high regard by all who knew him. He will be sincerely missed by the large clientele he served during many years of general practice and in his specialty.

Dr. Grant was married to Miss Eva M. Sissom, December 15, 1908. He is survived by his wife; two sons, Ansley M. Grant, Ennis, and Tom S. Grant, Fort Worth; one daughter, Miss Marjorie Grant, Houston; three sisters, Mrs. Hannah Roten, Cleburne, Mrs. Otis Kirkpatrick, Hillsboro, and Mrs. E. H. Stevenson, Cleburne; and two brothers, T. E. Grant, Maypearl and Dr. O. C. Grant, Cleburne.

Dr. Craig Munter of Fort Worth, Texas, died January 14, 1945, in a Fort Worth hospital, of coronary occlusion.

Dr. Munter was born May 26, 1900, in Venice, Illinois, the son of J. C. and Martha Munter. His preliminary education was received in the public schools of St. Louis, Missouri, and the University of Nebraska, from which he received the A. B. Degree in 1922. His medical education was obtained in the University of Nebraska, from which he was graduated in 1924. Following his graduation he served an internship in Barnes Hospital, St. Louis. He then served as a resident in Baylor Hospital, Dallas, and in the Jersey City Medical Center. He specialized in urology, following which he was in practice two years in St. Louis. In 1929 Dr. Munter located in Fort Worth, where he had been in the active practice of urology for fifteen years.



DR. CRAIG MUNTER

Dr. Munter was a member continuously in good standing, after his location in Texas, of the Tarrant County Medical Society, the State Medical Association and American Medical Association. He served Tarrant County Medical Society as secretary from 1932 until 1941, and was vice-president of that organization at the time of his death. He was vice-president of the State Medical Association in the year 1937-1938. He was a member of the South Central Branch of the American Urological Association. He had been editor of the *Bulletin of Tarrant County Medical Society* for the past twelve years, holding this office at the time of his death. He was consulting urologist at the City-County Hospital, Fort Worth, and a member of the staff of All Saints and Harris Memorial Methodist hospitals. He was medical examiner for the Civil Aeronautics Authority. He was a member of Pi Kappa Alpha academic and Alpha Kappa Kappa medical fraternities.

Dr. Munter was an accomplished writer, and while he had not published many medical papers, he had

made many notable contributions to the *Bulletin* which he edited. He was an original thinker and had unusually fine executive ability. During his tenure of office as secretary of Tarrant County Medical Society, that organization prospered financially as well as scientifically. Dr. Munter was a capable urologist. He will long be remembered for his genuine interest in the development and progress of medicine. His untimely death was a loss to the medical profession of Tarrant County. He was a member of the Methodist Church, a Knights Templar, and a member of the Shrine.

Dr. Munter is survived by his wife, the former Miss Elizabeth Coker, to whom he was married in 1937. He is also survived by one daughter, Martha Ann; and a son, Robert Craig.

Dr. George Terrell Singleton of Wichita Falls, Texas, died January 13, 1945, in a Wichita Falls hospital, following an operation performed January 10.

Dr. Singleton was born August 8, 1892, on a farm in Delta County, Texas, near Cooper, the son of Daniel M. and Elizabeth Foster Singleton. His academic education was received in public schools and East Texas State Teachers College at Commerce, Texas. His medical education was received in the Baylor University College of Medicine, from which he was graduated in 1923. After graduation, he served an internship in Baylor Hospital, Dallas, and in the City-County Hospital, Fort Worth. He then served six months' internship at the Wichita General Hospital, Wichita Falls, at which time he became associated with the late Dr. C. W. Stevenson in private practice. In 1940 he established the Singleton Clinic, of which he was head at the time of his death.

DR. G. T. SINGLETON

Dr. Singleton was a member continuously in good standing, of the Wichita County Medical Society, the State Medical Association and American Medical Association from 1925 until his death. He had also served as a member of the staff of the Wichita General and Bethania Hospitals. He served as president of the State Baylor Medical Alumni Association in 1942.

Dr. Singleton had an active part in the professional, civic and social life of Wichita Falls. He was a member of the Phi Chi medical fraternity. He had served for the past six years as a member of the Wichita Falls Independent School District Board. He was a member of the Methodist Church, which institution he served as a member of the board of stewards. He was the past president of the Wichita Falls Optimist Club. He was devoted to outdoor life, and prior to the critical shortage of doctors during the present World War, had been an ardent hunter and fisherman. During World War I he served as a sergeant in the Field Artillery. During the present war he had received three certificates of appreciation for services rendered in connection with the Selective Service System. He was a highly popular citizen and physician of Wichita Falls and he will be greatly missed.

Dr. Singleton was married to Miss Lillian Fain of Wichita Falls, Texas, January 6, 1927. He is survived by his wife and two sons, George Jr., age 17, and Earl, aged 7, and one daughter, Mary Elizabeth, aged 14. He is also survived by five brothers; Dr. J. D. Singleton, Dallas; Edmund Singleton, Grosbeck; Foster W. and Robert W. Singleton, Cooper, Texas; and D. F. Singleton, Fort Smith, Arkansas; and two sisters, Mrs. Emily Oats, Lubbock, Texas; and Mrs. Talitha Robbins, Donie, Texas.

Dr. Rufus Amery Sullivan of Dallas, Texas, died January 14, 1945, in a Dallas hospital following an extended illness.

Dr. Sullivan was born October 18, 1878, at Lawson, Dallas County, Texas, the son of Sam and Cynthia Seago Sullivan. His academic education was received in the public schools of Dallas, Polytechnic College, Fort Worth, and Burleson College, Greenville. His medical education was obtained in Barnes University School of Medicine, St. Louis, Missouri, from which he was graduated in 1902. He had taken postgraduate work in clinics in Chicago. He had practiced in East Texas and in Denison, Texas, prior to his location in Dallas in 1913. Since that date he had been an active general practitioner until his death. His period of active practice was more than forty-three years.

DR. R. A. SULLIVAN

Dr. Sullivan was a member for many years of the Dallas County Medical Society, State Medical Association and American Medical Association. He enjoyed general practice and was a typical exponent of the family physician type of practitioner throughout his professional career. He served his clientele as a counsellor on many matters in addition to physical illnesses. He was sincerely loved by the clientele he served.

Dr. Sullivan is survived by his wife, the former Miss Elizabeth Carl, of Baton Rouge, Louisiana, to whom he was married September 24, 1937. He is also survived by two sisters, Mrs. I. C. Williams and Mrs. R. L. Page, and one brother, George T. Sullivan, all of Seagoville.

Dr. James Edmund Norman of Trenton, Texas, was accidentally killed January 10, 1945, when his car was struck by a train when returning from a call in the early morning hours.

Dr. Norman was born January 21, 1869, in Monticello, Wayne County, Kentucky, the son of Thomas W. and Artemia Norman. His academic education

was received in the public schools. His medical education was obtained in the Saint Louis College of Physicians and Surgeons, Saint Louis, Missouri, from which he was graduated in 1899. He had taken postgraduate work in Chicago during his later professional life. After graduation, he practiced at Pilot Grove, Grayson County; Nobility, Fannin County; and Desert, Collin County, prior to his location in Trenton, which had been his home for the past thirty-eight years.

Dr. Norman had been a member since 1918 of the Fannin County Medical Society, State Medical Association, and American Medical Association. He had served his County Medical Society as vice-president and president. He was a member of the Methodist Church. He was highly esteemed as a capable general practitioner who had lived a long and useful life.

Dr. Norman was married in 1893 to Miss Lou A. Barrett of Pilot Grove, who died in 1907. In 1909, Dr. Norman was married to Miss Stevie Lee Countess, of Tuscaloosa, Alabama. He is survived by his wife and three sons of his first marriage; C. N. Norman, Ryan, Oklahoma; Lieutenant Colonel J. Sims Norman, M. C., Camp Lee, Virginia; and Joe B. Norman, Trenton. He is also survived by one brother, Thomas C. Norman of Dallas; and six sisters, Mrs. N. W. Roach, Newall, Oklahoma; Mrs. H. C. Boren, Ada, Oklahoma; Mrs. H. F. Lewis, Nugent, Texas; Mrs. Bettie Ward, Lubbock, Texas; Mrs. Artemia Yowell, Houston, Texas, and Mrs. W. T. Newsom, Leonard, Texas.

Dr. Newton Jackson Smith of Anson, Texas, died January 6, 1945, at his home, of coronary thrombosis.

Dr. Smith was born May 17, 1872, in Benton, Polk County, Tennessee, the son of Isaac B. and Louisa J. Smith. His academic education was received in the schools of Benton, Tennessee. His medical education was obtained in the University of Nashville, Tennessee, from which he was graduated in 1899. He began the practice of medicine at Knoxville, Tennessee, immediately after graduation. Two years later he moved to Texas, and for the past forty years had had an active practice in Jones County, until ill health curtailed his work about a year ago.

DR. N. J. SMITH

Dr. Smith has been a member for many years of the Taylor-Jones Counties Medical Society, the State Medical Association and American Medical Association. He served as staff member at the Hendrick Memorial and Saint Ann Hospitals in Abilene. He was active in the civic and church life of his community. He was a member of the Baptist Church, a Knights Templar, a thirty-second degree Mason, and a member of the Shrine. He was an active member of the Lions Club, of which he was a past president.

Dr. Smith was married to Miss Mattie L. Girdner, October 23, 1898, at Greenville, Texas. He is survived by his wife; three sons, Warren C., Abilene; Paul W., Houston; and Carl R., U. S. Navy, Quantico, Virginia; one daughter, Mrs. N. J. Crain, Abilene; three brothers, S. J. T. and N. S. of Waco, and Ed of Sulphur Springs; and four sisters, Mrs. G. W. Burns, Dallas, Mrs. J. W. Harris, Dallas, Mrs. W. H. Cox, Corpus Christi, and Mrs. Wade Smith, Altus, Oklahoma.

Dr. Marcellus A. Walker of Paris, Texas, died January 23, 1945, in a Paris hospital, of cerebral hemorrhage.

Dr. Walker was born November 22, 1877, in Lamar County, near Paris. His academic education was received in the public schools and Gowdey's Academy, Paris. His medical education was obtained in Tulane University School of Medicine, New Orleans, from which he was graduated in 1901. He began the practice of medicine in Honey Grove, Texas, where he remained until 1903. He then moved to Paris, which was his home for the remainder of his professional life.

DR. MARCELLUS A. WALKER

Dr. Walker was a member of the Lamar County Medical Society, the State Medical Association and American Medical Association, continuously in good standing throughout his years of practice. He had held all the offices of the Lamar County Medical Society at various times. He was an active member of the North Texas District Medical Society which he had served as president. He was a member and past president of the staff of St. Joseph Infirmary, Paris. He had served as president of the Board of Managers of Lamar County Hospital from the time of its organization until 1931. He served as Health Officer of Paris from 1905 to 1913. He was especially interested in tuberculosis control, and served as physician in charge of the clinic operated by the Lamar County Tuberculosis Association from the time of its establishment until his death. Apart from an active professional life, Dr. Walker was interested in the civic development of Paris. He was a charter member of the Paris Lions Club, a member of the Presbyterian Church, and a Mason. His principal diversion from his professional career was farming and the management of various property holdings. He was a highly esteemed physician and citizen, who will be greatly missed by his community.

Dr. Walker was married December 11, 1901, to Miss Emma Louise Tinnin of Paris. He is survived by his wife; one son, Lieutenant Colonel Marcellus A. Walker, Jr., M. C., Army of the United States, who is now in England, and who was associated with his father in practice in Paris prior to World War II; two daughters, Mrs. Allen R. Hickman, Houston, and Mrs. Ted McClain of Paris; and one brother, W. E Walker, Cape Girardeau, Missouri.

Texas State Journal of Medicine

EDITORIAL OFFICES: 1404 W. El Paso Street, Fort Worth, Texas
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[1]Deceased.

Vol. XL **April, 1945** **No. 12**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

Progress of Our Legislative Program appears to be, on the whole, rather satisfactory. The efforts of our Legislative Committee to prevent legislation which would lower scientific standards of medical licensure appear to be succeeding, thanks to a provision of the Constitution of the State of Texas, and to the interest aroused among doctors, members of the allied professions and laymen interested in public health and public welfare. Efforts to reduce the scientific standards of hospital practice appear also to be stymied. The public health measures endorsed by our Legislative Committee are moving along to successful conclusion.

However, and not to be overly optimistic about the matter, there is much competition between members of the Legislature as to which of the large number of bills introduced in the Legislature so far will get priority on the calendars of the Senate and the House. There is always the little matter of "suspension" to be considered. What will happen through this expedient is unpredictable. There is also the little matter of disagreement among the diverse factions advocating and opposing the passage of the numerous bills in which we are interested. If we fall out among ourselves, or appear to have done so, our cause will be adversely affected, and perhaps fatally so in a good many particulars. The old saying that we should avoid even the "appearance of evil," is still good. In order to be successful in any controversial legislation, pro or con, there must be competent leadership and complete confidence. This observation applies to any type of legislation, but more particularly that pertaining to the practice of medicine and the public health.

It is believed that if the medical profession will present a solid front in legislative matters, and will see to it that members of the Legislature understand what is wanted, our present legislative program will be very largely successful. If this is not done, our objectives will be attained, if at all, on a limited basis.

Chiropractic.—It will be remembered that the Attorney General has declared the chiropractic exemption bill (H. B. 29) and the chiropractic practice act (H. B. 34 and S. B. 57) unconstitutional. In spite of that fact, an effort was made to bring up the chiropractic exemption bill in the House on suspension. The effort succeeded by a vote of 49 to 56. The bill was then tabled by a vote of 50 to 67. The vote to table was a test vote. Three efforts have been made to set the bill for special order. All failed by a good margin of votes. There is no way to know about such matters of a certainty, and the best assurance we can extend is that this legislation is not prospering right now.

Naturopathy.—It will be recalled that this delectable piece of cult legislation closely parallels that pertaining to chiropractic, in that there is one measure (H. B. 97 by Morgan) which exempts naturopathic practitioners from the application of the Medical Practice Act, and another measure (H. B. 82 by Morgan), constituting the naturopathic practice act. It will also be recalled that these bills were reported out favorably by the Health Committee of the House. It came to pass a short while after this favorable report, that the naturopathic practice act (H. B. 82) was called up on suspension, and was passed to engrossment. However, it failed to secure enough votes to finally pass, and is now pending in the House.

Apparently there is considerable misapprehension among legislators as to the purpose and purport of this bill. Many think that it is merely a movement to gather together in one group, the specialists in physiotherapy, diet and the like, concerning which matter the medical profession as a whole is not particularly interested. Apparently many doctors writing to their legislators have actively opposed chiropractic and said nothing about naturopathy, that measure simply being lost in the shuffle because of the general feeling that it was so ridiculous that it could not possibly appeal to many members of the Legislature. The naturopathic exemption bill (H. B. 97) appears to have been sidetracked, or certainly lost to legislative view.

The Tax-Free Hospital Bill (H. B. 314 by Simpson), sponsored by the osteopaths, is pending in the House. An effort was made to bring the bill up on suspension, and another effort to set it down as a special order, but both efforts failed. The bill still can be brought up out of its regular order. This measure has become one of the most controversial measures in the Legislature. Members have been bombarded with pleas from their constituents that the bill should not pass. Of course, pleas to the contrary have come in, just in what number and proportion we don't know. The hospital people, the staffs of hospitals, the State Medical Association and other groups interested in the public health as it is affected by hospital practice, have made their opposition to the measure known to all and sundry.

Medical Examinations in Inquests are authorized in H. B. 526, by Reader. This measure was prepared through conferences between representatives of the State Halth Department, the State Medical Association, and the pathologists of the State, and it is deemed by many to be the most important public health measure now pending in the Legislature. However, the original measure was prepared hurriedly, and full appreciation of its ramifications has been slow of realiziation. For one thing, the measure did not repeal or amend enough of the existing laws to make it workable. There were a number of other inadequacies, and because of the importance of the movement, the author of the bill, Mr. Reader, asked the Attorney General to rewrite the bill. This was accomplished, with the help of representatives of the State Health Department and the pathologists. By this time, the Health Committee of the House had lost interest in the measure. Senator Stone has introduced a similar measure in the Senate (S. B. 304). It is planned to get one or the other of the two measures up for consideration by one or the other branches of the Legislature real soon. It is hoped that something will come of it. In the meantime, Dr. Wm. C. Woodward, now of Washington, D. C., formerly with the American Medical Association at Chicago, had heard of the bill, and had requested and received a copy of the same. He has prepared a discussion of the whole problem which will be of immediate assistance, and a great help to all who are interested. If this bill does not become a law at this session of the Legislature, it is planned to make it a prime legislative objective next time.

The several strictly public health measures sponsored by our Committee jointly with the State Board of Health, including a revision of the laws which go to make up the Sanitary Code, particularly the bills pertaining to communicable diseases and sanitation, after quite a stormy voyage appear to be now well on their way. The measures providing for premarital and prenatal examinations with serologic tests, have also been under fire, but appear to be getting along to favorable conclusion.

The new tuberculosis program, designed to work in with the National Tuberculosis program, and involving both case finding and care of the tuberculous, under the direction of the State Board of Health, is receiving much consideration. The Texas Tuberculosis Association is primarily sponsoring these bills, and a good many organizations in the State interested in the public health, are lending every support.

There are a large number of bills having to do with the public health and welfare, at the last count some 51, in which the Legislative Committee of the State Medical Association and the doctors of the State are interested. It is impossible to discuss these, or any satisfying number of them, in this report of progress. It may be said, however, that our Legislative Committee and its representatives at Austin, and friends in the Legislature are doing their best to check and advise about these measures. It is hoped that our readers will be sufficiently interested in public health and medical legislation to impress their Senators and Representatives with the need of doing something about them. It will not be possible for any one person to know about all of these bills, or much about any considerable number of them, but if members of the Legislature understand that their doctors will be glad to advise with them about any such legislation, it will help a lot.

Our House of Delegates Will Not Meet This Year as Planned.—Permission to hold the meeting was denied in a letter from the War Committee on Conventions, Washington, D. C., dated March 22, 1945. Our Executive Council had asked permission to hold the meeting in Fort Worth, May 9-10, 1945. In the application for permission, it was explained fully that in no other conceivable manner could the Association be legally perpetuated. It was furthermore explained that the activities of the Association are to a large extent directly in support of the war effort, and to a still larger extent indirectly so.

Under no circumstances would we consent to offer any interference with any part of the war effort, but it was believed by those in authority in our organization that the relatively small group comprising the House of Delegates, even though in excess of fifty, would hardly clutter up traffic or the hotels, for which reason permission to hold the meeting was requested. We quote from the letter of denial:

> "It is the consensus of the Committee that this meeting should be deferred. Therefore, permit is denied.
>
> "This action does not preclude your holding a meeting attended by not more than 50 persons from out of town, plus local attendance without numerical limitation."

Of course, under the limitations thus set out, there can be no meeting of the House of Delegates until the war conditions let up a lot, which, as a matter of fact, may happen in the not very distant future. In other words,

it may be possible to merely defer the meeting. We have asked about that, but have received no reply. We are not likely to receive one.

Chances are, some way to carry on legally will have to be devised. That matter is being investigated now. Whatever is done will of necessity be done within the authority of our Constitution and By-laws. If no meeting competent to legislate is allowed, apparently the President-Elect will take over, and all other elective officers will continue in office until their successors are elected and qualify for office. Councils will continue to function, passing upon their own problems, on their own, and the President will appoint the committees subject to his appointment, and they will function as usual. There will presumably be no one to pass upon committee reports. Whether or not the usual reports will be submitted, and published in the JOURNAL, remains to be determined.

The American Medical Association advises that the regular meeting of the House of Delegates of that body will not be held as planned, either in late May or early June. Always the requirement is that attendance be held to a minimum, and apparently that minimum cannot exceed 50 out-of-town delegates. Whether the American Medical Association can legally set up a group qualified to take care of its legislative problems within that limit, also remains to be determined. Certainly no one has authority to cut down the delegation from any state, and it will take considerable cutting down to hold the out-of-town attendance to below 50. It is clear that the Constitution and By-aws of the American Medical Association and of the State Medical Association of Texas, have failed to provide for such a contingency as now confronts both organizations. Something should be done about that.

The 1945 Scientific Sections Programs, prepared for the 1945 Annual Session, which has been abandoned because of the war, are published in this number of the JOURNAL (p. 656). Section Officers deserve commendation for the compilation of these programs under the difficult conditions imposed by the war, and the Association is particularly indebted to those who accepted places on these programs. Doctors have little time now for the many hours required to produce worthwhile scientific discussions.

As was stated in the March number, the papers on the programs of the Scientific Sections will be published througout the forthcoming Journal year, provided, of course, that they are made available for publication. Authors have been requested to send them in, and those who were selected to open the discussions of papers have been asked to furnish their discussions for publication with the papers. Essayists were previously requested to furnish copies of their papers to discussers so that their discussions might be prepared.

Officers of only three of the eight scientific sections elected to name opening discussers of papers on their programs after the Annual Session was abandoned.

No effort was made to formulate general meeting programs after it was certain that the Annual Session could not be held. For this reason, we shall have only one paper each from the honor guests who had accepted invitations to participate in the 1945 Annual Session.

It is the prayerful hope of all, for many reasons, that this year will be the last when war will interfere with the scientific meetings of the Association.

April Is Cancer Control Month.—At this time each year, a campaign of publicity is conducted on the most extensive scale possible, and as long as special interest can be maintained in the subject. It is hoped that the "all together" push thus promoted will to some degree continue indefinitely. The effect of repeated campaigns should be cumulative. To say that doctors are particularly interested in the campaign is platitudinous. This editorial expression is merely to call the attention of our readers to the necessity of getting in there and pitching.

It seems that the real need right now is money. Informative publicity is necessary, but to be effective the campaign must be backed by funds, and ample funds at that. Figured on a per death basis, cancer control receives less money than any other such campaign. It is said that the polio research receives about $500.00 per polio death, whereas our cancer research receives about $5.00 per death. Of course, there is a difference in the death rate. We are not sufficiently informed to carry the comparison further, but we do know that the amount of money being spent in cancer research and related activities is not sufficient. Apparently, there has also been a lack of organization for purposes of coördination. There are many centers of activity in cancer work, and much money is being spent in various centers, but what is needed is more coördination of effort and of distribution of information as between research centers. Cancer is not a preventable disease in the sense that epidemics are preventable, but it is a curable disease, and there are factors which lead students of cancer to believe that eventually a way will be found

whereby the incidence of cancer will be made unlikely, or even impossible, which will mean prevention, of course.

We all too often confuse the humanitarian issues in treatment with the humanitarian issues at stake in matters of research. The two meet under certain conditions. Many of the necessary studies in the control of cancer require the use of cancer patients, while many others do not. Indeed, many of them require only the use of laboratories, chemical, biological and what have you. Even so, humanitarian purposes underly much of the interest in cancer activities manifested by our people. Experience with the disease constitutes one of the greatest incentives in the whole field, particularly if the experience is of more or less personal application. Doctors approach the problem from many angles.

We believe the people of Texas are fairly alive to the importance of the cancer problem. The M. D. Anderson Hospital for Cancer Research, at Houston, under the direction of our own Dr. E. W. Bertner of Houston, is in a position to do something about it. Much is being done now, and much more will be done when personnel and materiels are released from war restrictions. The State of Texas is a principal contributor to this activity.

There is a very fine article in this month's issue of *Fortune*, meant for the layman, but as well of great interest to the medical profession, under the subject: "Cancer: Notes of Hope." This is a thoroughly orthodox discussion, and it is complete. It should be easily understood by the layman. The author of this article, among several very interesting discussions, calls attention to the difference between the treatment of cancer with the means available to us at this time, and the treatment of diseases caused by human hostile bacteria, with penicillin and the sulfa drugs. He anticipates the possibility of some such development in the cancer field, even though "one still does not know the basic mechanisms of the penicillin process; one knows only that it works like magic." He goes on to say:

"True, such cancer magic (or science) is in the future, a future to be reached, if at all, only after the organized, rational expenditure of millions of dollars and the energies of the best scientific brains the race can muster. Until then, the massing and perfecting of every facility of education (see your doctor!), detection, diagnosis, surgery and radiation might conceivably cut the cancer death rate almost in half. Since no cure can wipe out a disease, darkness still broods over cancer.

"But pessimism is another quack approach, which hinders science. Cancer investigators have had such tools as pure animal strains and such techniques as biochemistry at their disposal for only a decade or so. Already they have succeeded in producing with them a few pin-points of light. The laboratories may yet perhaps in the lifetime of many a *Fortune* reader—dispel the malignant darkness.

Our Membership on April First This Year is 3,288, classified as follows: Regular, 2,693; Honorary, 14; Intern, 20; Military, 558, and Emeritus, 3.

At the same time last year, the total membership was 3,531. The membership at that time was divided as follows: Regular, 2,673; Honorary, 31; Intern, 16; Military, 807, and Emeritus, 4.

This is rather close as to actual statistics. The money involved is quite different. On April first last year, the income from dues was $24,245.00. At the same time this year, the total income from the same source, is $54,554. It seems that we are a bit short on members, but a bit long on money. Perhaps both are to be expected. We are hopeful that the increase in dues will not deter too many of our members from renewing their memberships. We cannot afford it—not even for the added money.

In this connection, we would make a plea for the county society secretaries, who must, in the final analysis, assume responsibility for the collection of dues. It is not their obligation to run their members down and force them to pay up, or even persuade them to pay. It is actually merely their duty to receive the dues from their members, give receipts therefor, and send the State Association's share thereof to the State Secretary. Of course, it is up to them to make out their respective annual reports, and that is no small task in itself. In short, it would seem that the least our members can do to help is to very promptly send their checks to their own county society secretaries. This year dues are $20.00, plus whatever the county society charges for itself. The State Secretary cannot accept dues from members direct, except and unless their respective county society secretaries specifically authorize him to do so. Under no circumstances can he receipt for county society dues.

Annual reports are due in the office of the State Secretary on April first. Any member of last year whose name is not on the annual report of his county society, is not a member any longer, and has not been a member since January first. Any member whose name is on that report, is a member, and as of January first. This is a matter of By-Laws of the State Association. The State Secretary must transcribe these county society reports for the permanent records of the Association. It takes time to get the job done. For that reason, no county society annual report is closed until they are all closed, and they must all be closed by the time the auditor takes over the books of the Association, at the

latest, which is in the neighborhood of May first. Therefore, the State Secretary will probably be in a position to maintain continuity of membership of any member whose dues are sent in by that time. That may be a matter of importance to any member, at any time.

Of course, should any member not be included in the annual report of his county society secretary, he may renew his membership at any time during the current calendar year by the simple expedient of paying his dues, but his membership will date from the date his dues are paid and not from the first of the year. After the first of the year, any member of last year who has not paid during the calendar year, must apply for membership all over again, and be again elected. This also may be a matter of considerable importance to any member at any time.

The County Medical Society Library Endowment Fund.—In announcing in these columns in the March, 1945, number of the JOURNAL, donations received during the previous month to the "County Medical Society Library Endowment Fund," the amounts given by Wichita and Jefferson County Medical Societies were in error. Jefferson County Medical Society donated $100 to the fund instead of $25, as was published, and Wichita County Medical Society donated $25 instead of $100. We are sorry for the error.

We are pleased to announce that during the past month Potter County Medical Society donated $50.00 to the fund, which now totals $360.00, which amount has been given by eight county medical societies in response to the appeal of the Library Endowment Committee of the Association for endowment funds for the library. The County Medical Societies which have responded are to be commended. Members of the Association who are interested in developing the Library to its greatest potentialities in service are referred to discussions of this subject in the February (p. 513) and March (p. 570) Journals, and particularly the February number, which carries the very fine letter of the Library Endowment Committee.

New Films for the Library.—The Motion Picture Lending Library of the Association has received five additional films on a long-term loan basis for relending to county medical societies, physicians, medical groups, and others interested. Four of the films are for professional audiences and one is for lay groups; three are sound and two are silent films. Four of the films are made available through the courtesy of Mead Johnson & Company, and one is a direct gift from the U. S. Public Health Service, which is closing out its library of films.

Appreciation is herewith expressed for these additions to the Motion Picture Lending Library. A concise description of each of the films received follows:

Appendicitis in Childhood.—16 mm., sound, 1 reel, showing time, 40 minutes. (For professional audiences.) This picture was made by Dr. Joseph Brennemann, Professor of Pediatrics, University of Southern California, at Los Angeles. It is available for loan through the courtesy of Mead Johnson & Company.

The film presents Dr. Brennemann in a most interesting and informative lecture on appendicitis in childhood. Reasons for the failure to reduce the mortality in the last decade or two are advanced. Theories of the cause of the disease are elaborated. The diagnosis and symptomatology are discussed in clear detail. An excellent exposition of treatment is given, pointing out when to operate and the cases in which immediate operation is contraindicated. The many conditions with which appendicitis may be confused are differentiated.

This picture is excellent for teaching purposes, and for reviewing the salient points regarding a condition which still takes too high a toll in human life.

Urinary Antisepsis, Progress in.—16 mm., sound, 1 reel, showing time, 40 minutes. (For professional audiences.) This picture presents a lecture by Dr. H. F. Helmholtz, Professor of Pediatrics at the University of Minnesota Post Graduate Medical School, Minneapolis, on urinary antisepsis. It traces the history of urinary antisepsis from an early period to the present time. The introduction, use, and results obtained with the various drugs and agents employed are reviewed, such as alkalinization, acidification, urotropin or methenamine, phenyl salicylate, the acriflavine group, pyridium, hexylresorcinol, ketogenic diet, mandelic acid, sulfanilamide, and sulfathiazole. The rationale of proper acidification of the urine in certain cases is clearly detailed. The particular advantages of sulfathiazole as a urinary antiseptic are emphasized. The importance of diuresis in the treatment of urinary tract infections is stressed.

This is a practical, clinical presentation which may be advantageously used before a roundtable discussion of the subject at county medical society meetings.

Resuscitation of the Newborn.—16 mm., silent, showing time, 12 minutes, 1 reel. (For professional audiences.) This picture was made by Dr. Eldon W. Trice, Chief of Staff of the Methodist Hospital, Los Angeles, California, and is available for loan through the courtesy of Mead Johnson & Company.

This picture shows low forceps delivery following protracted labor, and the gentle emptying of the oropharynx. Respiration is stimulated by the breathing of "Carbogen"—a mixture of 92.5 per cent oxygen and 7.5 per cent carbon dioxide. The rebreathing bag is filled with this mixture, and a No. 16 French silk catheter is used for aspiration. Pressure on the bag distends the alveoli, and a safety valve on the bag prevents pressure greater than 20 mm.

Breech Extraction with Forceps.—16 mm., silent, showing time, 18 minutes, two reels. (For professional audiences.) This picture was made by Dr. G. C. Richardson and Dr. W. B. Serbin, of Northwestern University Medical School and Wesley Hospital, of Chicago. It is available for loan through the courtesy of Mead Johnson & Company.

Points in diagnosis are outlined, and the step by step procedure of breech extraction is clearly shown, with each point in technique well depicted. It is

emphasized that delivery must be completed without permitting too long compression of the cord between the head and bony pelvis. Application of forceps to after-coming head is shown. The placenta is expelled by Duncan's mechanism.

Magic Bullets. (Suitable for lay audiences.)—16 mm., sound, showing time, 20 minutes, 1 reel. This film was produced by Warner Brothers Motion Picture Company in coöperation with the United States Public Health Service. It is available for loan through the courtesy of the United States Public Health Service.

This picture is a dramatic exposition of the epochal discovery of "606," or salvarsan, by Paul Ehrlich. The difficulties encountered during the extended period of research, not only technical, but administrative and financial, before "606" was finally produced are interestingly recorded. Since the advent of later, more effective and less toxic drugs and agents for the treatment of syphilis, which includes penicillin, "606" is not looked upon as the "miracle drug" in this disease. Nevertheless, it was a "miracle drug" for years, and this film is an interesting and dramatic depictation of one of the most important scientific advances in medicine.

Program committees of county medical societies and other groups interested are urged to borrow these and other films available in the Library, 1404 West El Paso Street, Fort Worth. A list of available films will be sent on request. The only expense to the borrower is the cost of shipment, by express, insured, and for any damage to the films on loan.

CURRENT EDITORIAL COMMENT*

Modern Methods for the Recognition of Pathogenic Streptococci. — The streptococci comprise such a varied and widely distributed class of organisms that methods for distinguishing between the potential pathogens and the relatively harmless varieties are essential to an intelligent use of laboratory procedures in the diagnosis and control of the various streptococcal diseases. The hemolytic streptococci alone can be differentiated into eight distinct serological groups by the now well-established method of Lancefield. These groups are designated by letters and should not be confused with types within the groups which are designated by numerals. Although the Lancefield classification was introduced in 1933, many laboratories still do not attempt to recognize the different groups in spite of the repeated demonstration of the value of this procedure.

The identification of the serological groups in several large series of cultures has shown that about 95 per cent of hemolytic streptococci from human infections are members of Group A. On the other hand only about half the strains from normal individuals belong to Group A. It has also been shown that Group A streptococci can be isolated from as many as 30 per cent of the throats of normal individuals. Although these organisms can be carried in the respiratory tract without apparent harm to the carrier, they must be regarded as potentially dangerous until means are discovered to show that they are not. There is some evidence to indicate that a given strain may "develop the property of communicability" (Coburn) in the respiratory tract of one person but not in others. None of the serological types is specific for any of the disease entities caused by Group A streptococci. All types have been found in association with scarlet fever at one time or another but in a given locality in any one season a few types tend to predominate. We cannot say that one type is more pathogenic than others but we can determine whether or not a given strain belongs to the type which is currently epidemic.

Although members of groups other than Group A are capable of producing sporadic cases of disease in man, they have never been found in association with epidemics. Some of these organisms are highly pathogenic for certain animals but little significance can be attached to their presence in well human individuals.

Probably the most valuable application of the serological group determination has been the clarification of the sources of infection in puerperal sepsis and in wound infection. Of all the strains of hemolytic streptococci from the genital tract of parturient women examined by Lancefield and Hare, only the members of Group A were associated with puerperal infections. A few exceptions to this original observation have since been reported by others. Members of groups other than A are not infrequently found in the genital tract of normal women, but Group A rarely occurs. The recognition and exclusion of the sources of the most pathogenic hemolytic streptococci can be accomplished only by serological differentiation.

At the beginning of the First World War about 90 per cent of wounds were infected with hemolytic streptococci after the first week at the base hospital. This situation was improved before the end of the war but since there was no means of distinguishing the pathogenic varieties, it was believed that many wounds became infected from the skin and clothing at the time of injury. In the present war, British workers have shown that fresh wounds rarely if ever contain Group A streptococci and that the sources of infection are the throats of the men and their attendants. Since Group A streptococci are not found on the skin and clothing except in the case of nasopharyngeal carriers, the im-

*This department of the JOURNAL presents editorial comments on current items pertaining to the science, art and practice of medicine, contributed by members of the State Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the State Medical Association of Texas to submit such discussions for this department. The discussions should not be more than 500 words in length.

portance of such carriers as sources of puerperal and wound infections is apparent.

The recognition of serological groups makes possible a more intelligent use of chemotherapy. Members of Group A are generally susceptible to sulfonamides and penicillin. The Group D organisms are not. Other groups, although they may be inhibited by sulfonamides, are not sufficiently pathogenic to justify the indiscriminate use of the drugs.

The serological typing of hemolytic streptococci within Group A is essential to the epidemiological study of streptococcus infections. It has been applied to the study of institutional outbreaks where it has often been found that infection was introduced from an outside source and was due to a type not carried by inmates of the institution. In tracing the source of food-borne throat infections, the trail would soon be lost because of the many Group A carriers if it were not possible to identify carriers of the same type as that found in cases of infection.

Modern methods make it possible not only to recognize streptococci responsible for the great majority of human infections but also to distinguish epidemic types from those not concerned.

ROBERT M. PIKE, Ph. D.,
Department of Bacteriology
Southwestern Medical College,
Dallas 4, Texas.

HEALTH OF THE ARMY IN UNITED STATES

During December the incidence of acute respiratory diseases in Army installations within the United States rose slightly, the Surgeon General's Office reports. The present incidence is much lower than in December, 1943, when the influenza epidemic was in progress. In fact it will probably prove to be lower than any previous December rate in a number of years, although final data are not yet available.

A seasonal increase in pneumonia, mumps and scarlet fever is under way. For none of these diseases is the increase excessive. Measles incidence has not shown the expected increase, nor has meningococcal meningitis. The indications are that meningitis will be considerably less prevalent this year than last. The incidence of all diseases is lower than for December of the two preceding years but slightly higher than the December average for the period 1930-1939.—*S. G. O. Notes*, Jan. 15, 1945.

PHYSICAL FITNESS

"The national point of view in physical fitness," Frank S. Lloyd, Ph. D., New York, says in *Hygeia, The Health Magazine*, for February, "holds that all of us are responsible. A program on a national level must have as one of its platforms the assumption of responsibility by institutions of all types, and by all our various forms of government. But, above all else, the responsibility of every individual for a personal pride in his own physical fitness must be assumed too. No worker . . . should ever be absent from his work or be unable to render a 100 per cent contribution day in and day out because he is physically unfit. America is a champion. Great champions must be ready at all times."

THE CHOICE OF TREATMENT IN CANCER

OZRO T. WOODS, M. D.
DALLAS, TEXAS

Since the first patient was treated for cancer, there has been continual improvement in the methods used. Only in recent years, however, have we accumulated enough information on accurately diagnosed and well-studied cases to satisfactorily evaluate the different methods of treatment. The methods of radiation treatment of tumors have improved and become sufficiently standardized that their results can be judged and compared with the results of surgical treatment. The pathologic and clinical classifications are now on an international basis, and reports from the Radium Hemmet in Stockholm and the Curie Institute in Paris can be compared with the treatment given at the Memorial Hospital in New York City and other tumor institutes and surgical clinics.

It is the purpose of this discussion to describe briefly the principles of radiation and surgical treatment used separately and in combination, and to indicate their choice in treatment. The aim in the surgical treatment of cancer is to remove all of the malignant disease from the patient. The improvement in surgical techniques, combined with the use of blood plasma to prevent shock, have greatly extended the field of surgical treatment, and lowered the mortality, which is notably proved by the results achieved in transthoracic total resections of the stomach. Not only does the good cancer surgeon remove all of the tissue he thinks is involved, he also removes specimens from the periphery of the surgical field for frozen section examination, if he is in doubt about the extension of the tumor. As he proceeds with the block dissection of lymph node bearing tissue, he removes suspicious nodes for separate examination, and notes their location. When the pathologic reports are received, he knows accurately the extent of the tumor he has removed, and whether subsequent surgery or radiation is indicated. He is also in position to give a better prognosis.

The object of radiation treatment is to destroy the cancer in the patient's body. Improvements in the methods of application have increased its value, and the larger and more widespread supply of radium has added to its usefulness. Also, improvement in the quality of the machinery producing x-rays makes the dosage more accurate, and many

From the Tumor Clinic, Southwestern Medical Foundation, Dallas, Texas.
Read before the Section on Surgery, State Medical Association of Texas, San Antonio, May 4, 1944.

COLLEGE OF PHYSICIANS

communities now have satisfactory therapy units.

If it seems evident that the cancer cannot be cured, then modifications of either one or both methods are used to control its growth, relieve pain, or prevent its interference with the function of other organs of the body. Radiation is useful in most instances in retarding the growth of the tumor, and in relieving pain, particularly in the presence of bone metastases. The surgical sectioning of nerves and pain tracts in the spinal cord relieves pain. The relief of pressure on hollow organs is often indicated to restore their functions, as for example, in carcinoma of the prostate, urinary obstruction is relieved by transurethral resection, and intracranial pressure is relieved by craniotomy.

The results from good cancer surgery and irradiation therapy cannot be compared to ordinary applications of these methods of treatment. When the facilities for training are ample, I think we will have doctors specially trained in the diagnosis and treatment of cancer in every medical community. Until that time comes, however, the responsibility for an early diagnosis and often the direction of treatment, rests on the general practitioner. The general surgeon and the general radiologist in most instances will carry out the treatment. This is a serious responsibility, for out of every twenty people born, cancer will claim the life of one. After the age of 40, one out of every seven deaths is from cancer. After a steady climb from fifth place, cancer stands only second in the cause of deaths.

In order to choose the proper treatment an accurate diagnosis must be made. This means knowing what kind of tissue the tumor comes from; its degree of malignancy; and how far it has extended in the patient's body. The origin of the tumor and its nature are determined by biopsy, and there are no exceptions to the need for this procedure. The most skilled surgeons and radiation therapists make a substantial percentage of mistakes when they depend on clinical and gross pathologic evidence for the diagnosis of cancer. Only by microscopic examination can one tell whether he is dealing with a primary tumor or metastasis from a distant or internal tumor.

To determine the extent of spread of the tumor most of the fields of examination are used. A very complete physical examination is, of course, necessary. X-ray studies will reveal metastases to lungs and bones. Endoscopic examination with either the cystoscope, peritoneoscope, bronchoscope or gastroscope often help to determine the size and extension of the tumor. In accessible tumors on the body surfaces or cavities, biopsy is a simple procedure. It is best obtained with a sharp knife or special cutting biopsy instrument. It should come from an active growing portion of the tumor mass, not necessarily from its border, and it is best *not* to suture the wound. Bleeding can be controlled by chemical heat or high frequency cauterization. The tissue can be examined by permanent section methods either locally, or sent to a pathologist. There is no satisfactory evidence to prove that a biopsy, if properly done, is dangerous; it is much safer than rough palpation of the tumor. In general, when the tumor is not accessible, frozen section examination at the time of the biopsy is definitely preferable. The biopsy may constitute the entire treatment, or become a part of the operation if extensive surgery is indicated. This plan definitely handicaps the doctor to whom pathologic service is not available.

When the kind of tumor is known and its extent determined, one is then confronted with the choice of treatment. First it must be decided whether or not the patient can be cured. Unless all of the primary tumor and its extensions can be removed, surgery will not do the job. Unless the tumor is radio sensitive, and radiation can be effectively applied to all of its extensions, cure cannot be expected with radiation treatment. If a cure seems reasonably sure by either method or a combination of both, then the most radical surgery compatible with a moderate mortality should be done at once. All the radiation the surrounding tissues can stand without serious permanent damage, should be started as soon as possible. There is always the day when a tumor will become incurable as a result of its growth and spread. If the patient cannot be cured, then modification of one or both methods of treatment should be undertaken. For instance, extensive surgery should be done only to prevent unbearable pain and such complications as would occur in an obstructing carcinoma of the rectum.

Combined surgical and radiation treatments are also indicated on very definite principles. Radiation treatment given to satisfy the patient or her family, when no benefit can be expected, is an unjustified procedure. It brings discredit to one of the valuable treatments of cancer; and its utter failure may keep some other patient from consulting a doctor. Uselessly operating in incurable cases discredits surgery in the same manner. If patients' families and friends could be made to realize that the lack of cure was not due to ineffective meth-

ods of treatment, but because the treatment was started too late, we would see an increased number of curable patients.

Irradiation followed by surgery is indicated when the radiation makes the tumor operable, or decreases the operative hazard. Irradiation stops the growth and reduces the size of many tumors that it cannot destroy. In reducing the size of the tumor, it may destroy enough of the rapidly growing cells in the periphery of the tumor so that contiguous vital tissues can be left intact and all of the tumor removed.

In *cancer of the esophagus* the obstruction can be relieved long enough for the patient's nutrition to be improved to where the operative risk is compatible with the chance of cure.

In *cancer of the fundus of the uturus* bleeding is controlled until the anemia can be corrected, and the size of the uterus reduced to facilitate radical hysterectomy. Cure by either surgery or radiation is quite satisfactory in this tumor. The percentage of cures is increased by 10 to 20 per cent, and the mortality reduced by the combined method. This plan of treatment is indicated for the tumors listed in table 1.

TABLE 1. *Tumors Treated by Irradiation Followed by Surgery.*

1.	Cancer of fundus of uterus.
2.	Cancer of esophagus.
3.	Osteogenic sarcoma.
4.	Ewing's tumor.
5.	Carcinoma of kidney.

Irradiation is given after surgery for its effect on tumor tissue that could not be removed surgically, or for its effect on probable extensions of the tumor that were not recognizable clinically, but were suspected by the findings at operation. I will make this clear by an illustration. If metastatic involvement is found in axillary lymph nodes at radical mastectomy, postoperative radiation is indicated. In this instance the primary tumor would not be curable by irradiation.

TABLE 2. *Tumors Treated by Surgery Followed by Irradiation*

1.	Cancer of the breast.
2.	Cancer of the thyroid.
3.	Certain cancers of the ovary.
4.	Cancer of the penis.
5.	Certain cancers of the bladder.
6.	Certain gliomas of the brain.

The metastasis outside the surgical field might be so recent that its nutrition is not well established; or they might be in tissue that has considerable resistance to tumor invasion. Either or both conditions might make them radio sensitive, and a cure would result. Usually the result would be to retard the growth of these extensions and postpone the eventual spread over the body. I have seen three to eight-year arrests occur. This type of treatment is indicated in the tumors listed in table 2.

Then comes the group of tumors so resistant to irradiation that it is useless even as a palliative measure. These tumors are best treated by surgery alone, although on the whole the results are poor. This is not due to faulty treatment, but because they are usually well advanced in growth before the diagnosis is made. Metastases are often past the regional lymph nodes that can be removed. Better methods of diagnosis of early lesions will increase the number of cures. These tumors are listed in table 3.

TABLE 3. *Tumors Treated by Surgery Alone.*

1.	Cancer of the stomach.
2.	Cancer of the colon.
3.	Cancer of the rectum.
4.	Cancer of the prostate.
5.	Cancer of the ovary.
6.	Malignant melanoma.
7.	Neurogenic sarcoma.
8.	Acoustic neuroma.
9.	Giant-cell tumor of bone.
10.	Bronchiogenic carcinoma.
11.	Pituitary tumors.
12.	Carcinoma of skin of hand.

There is another group of tumors, some of which—in their early stages—can be successfully treated by surgery. Usually these tumors, when they come to treatment, are far enough advanced in growth that irradiation offers a better chance of cure. In the earlier stages irradiation offers just as good a chance of cure, with less mortality and morbidity, and when they occur on the face, less scarring results. These tumors are listed in table 4.

TABLE 4. *Tumors Treated With Irradiation Alone.*

1.	Cancer of skin, lip and mouth.
2.	Cancer of pharynx.
3.	Cancer of larynx.
4.	Metastic cervical lymph nodes.
5.	Cancer of cervix.
6.	Medulloblastoma.
7.	Lymphoblastoma.
8.	Cancer of the testicle.
9.	Neuroblastoma.
10.	Giant-cell tumor of bone.
11.	Pituitary tumors.
12.	Retinoblastoma.
13.	All inoperable radio sensitive tumors.

Of course, I realize that there are exceptions to any generalization such as I have made, and I will illustrate one. Small low-grade cancers of the skin may be removed

satisfactorily by surgery. The biopsy can be done on the entire tumor mass. If the presumed diagnosis is wrong, then a radical operation or irradiation therapy can follow.

I want to condemn any method of treatment that destroys the tumor so that microscopic diagnosis cannot be made. Fulguration of tumors of the skin is the most common example in that some of these patients show up later with extensive incurable cancer.

I am aware that there are differences of opinion as to these groupings I have made, and in general these differences of opinion are based on the objector's own experience. Such groupings as these can only be made by a large tumor clinic staff, and probably then with a few objections by some individual members. The only doctors who would agree are those who have had the opportunity to see the best results that can be obtained in each of these four plans. This selection is based on the reports from the better-known tumor clinics in the world, and on the eleven years experience in our teaching tumor clinic now at Southwestern Foundation Medical School.

Improvements in surgical techniques and in radiologic methods will of course change these groupings. My idea in giving them is to call attention to the fact that the treatment of cancer has improved markedly; that it is on a sound scientific basis; and that the methods of investigation are clinical and not experimental. Clinical methods of study are, on the whole, more sound than experimental methods, and until we know the cause of cancer we must depend on them for further improvement.

REFERENCES

From the abundant literature on treatment of tumors, I could give many references to substantiate all of the positions I have taken. I also could give probably more that would disagree. These opinions represent more the trend than the present common practices in the treatment of tumors. It is impossible in the general literature on tumors to have a useful source of information at hand. The best collection of information, or I might say the only one, is that edited by George T. Pack and Edward M. Livingston, entitled: "The Treatment of Cancer and Allied Diseases," which is published by Paul B. Hoeber. It contains articles from 147 authors, and is published in three volumes.

Dallas Medical & Surgical Clinic.

ABSTRACT OF DISCUSSION

Dr. A. O. Singleton, Galveston: Dr. Woods is to be congratulated on offering us some plan whereby the best may be gotten from radiation and surgery in cancer. It is only by the combined knowledge and effort of surgery, pathology and radiation that the patient may have the best chance of recovering. Whether or not his plan is a wise one may be determined later, and without trying some different procedure and comparing it with some other procedure can we tell which methods may be superior. We still believe that cancer is a surgical problem primarily and that the accurate pathological diagnosis supplies information indispensable to sensible treatment. Radiation has a place we cannot deny, but it should be an adjunct to surgery rather than a competitor of surgery in the treatment of cancer.

PRURITUS VULVAE— A TWELVE YEAR STUDY

KARL JOHN KARNAKY, M. D.
HOUSTON, TEXAS

Pruritus vulvae is one of the first problems in gynecology studied by me under Drs. Willard R. Cooke, H. Reid Robinson, J. L. Jinkins, and George T. Lee, Department of Obstretrics and Gynecology, University of Texas School of Medicine, Galveston.

This work started as a research problem on Trichomonas vaginalis in 1932, and is still in progress.

Pruritus vulvae is an intense itching about the vulva. It is always due to some definite and specific condition. In over 1,422 cases we have demonstrated some cause or causes for this symptomatic disorder. The most common cause was Trichomonas vaginalis. In the child, infantile vaginitis was found to

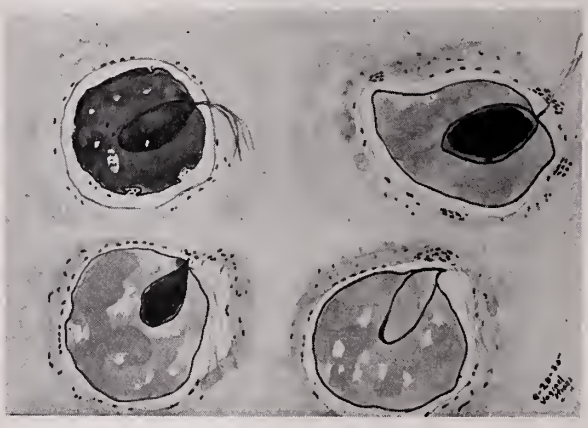

FIG. 1. Carbol fuchsin stained trichomonads.

be commonly caused by trauma with secondary infection, or a mixed infection, or the gonococcus. During the childbearing period, Trichomonas vaginalis and fungi occur together; later in life Trichomonas, fungi, and senile vaginitis are common offenders. At any age "contact dermititis" or "allergy" to such articles as the condom, underclothes or topical medications may cause pruritus. A

From the Department of Gynecology, Research Division, Jefferson Davis Hospital, Houston, Texas.

Read before the Section on Obstetrics and Gynecology, State Medical Association of Texas, San Antonio, May 4, 1944.

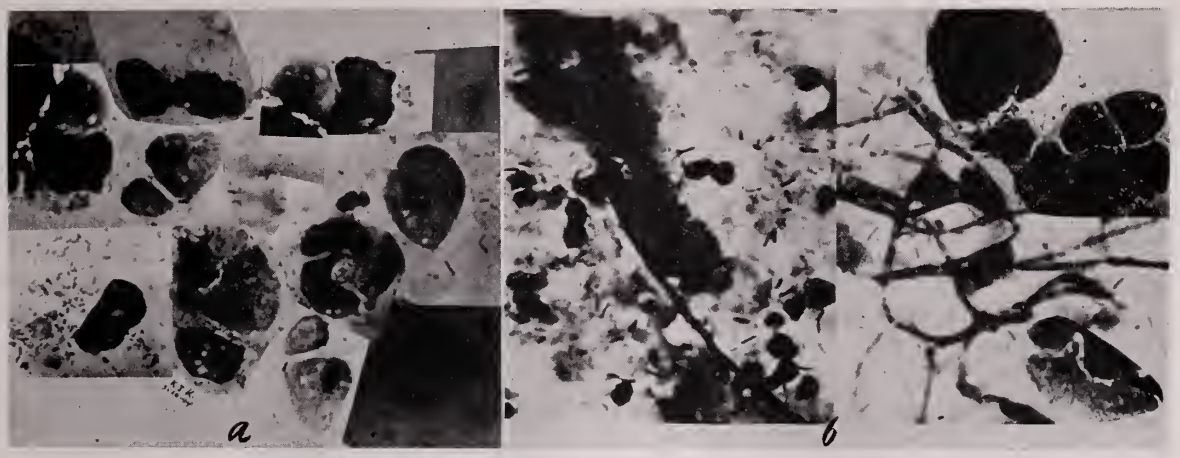

FIG. 2. Left, Trichomonas smear. Right, Monilia smear.

rare cause is vitamin deficiency, such as riboflavin deficiency; I have seen only one such case in twelve years. Acute or chronic cervicitis with an associated discharge does not cause pruritus, but if Trichomonas vaginalis or fungi or both are present, then the cervical leukorrhea favors the persistence of these two infections. This is the reason that even the smallest ulcer of the cervix should be treated by cauterization, coagulation or conization. By removing these ulcers the vaginal infections clear up on their own accord with simple vinegar douches, 5 tablespoonfuls to 2 quarts of hydrant water. We must be sure to clear up all associated vulval and cervical lesions. A routine urinalysis for sugar must be made to rule out true diabetes. (Hesseltine).

One should not diagnose any pruritus as idiopathic. If a laboratory is not available to demonstrate the causative factor, and if the patient is a young woman, 1 ounce of 20 per cent zinc oxide with 4 to 6 grains of salicylic acid ointment may be used. If the patient is older, 0.1 to 0.3 milligrams of diethylstilbestrol may be given daily by mouth, plus zinc oxide and salicylic acid ointment. If the etiologic factor cannot be demonstrated, the cause is usually some fungus infection, such as Monilia albicans or Trichophyton. Most common in our study has been Monilia albicans.

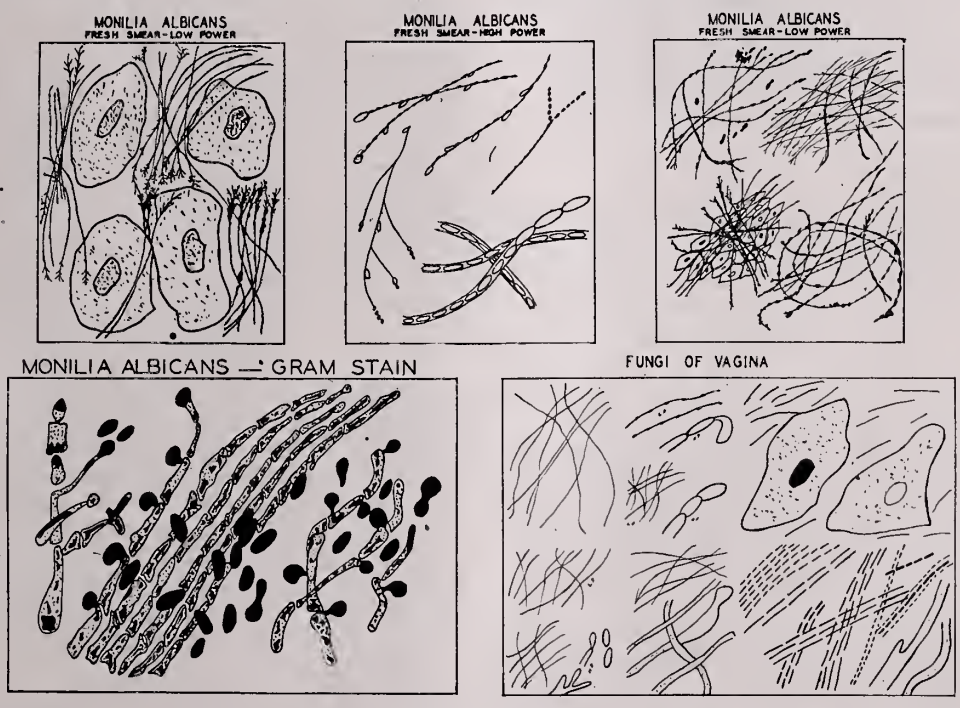

FIGURE 3.

CAUSES OF PRURITUS VULVAE

Trichomonas vaginalis. This is the most common cause of pruritus vulvae encountered by any one who treats female patients. Eighty-eight per cent of our pruritus vulvae cases have been caused by this protozoan.

GENERA AND SPECIES OF YEASTLIKE FUNGI ISOLATED FROM 58 PATIENTS WITH UNCOMPLICATED MYCOTIC VULVOVAGINITIS AS A CHIEF COMPLAINT

	CANDIDA (MONILIA)		
	ALBICANS	STELLATOIDEA	PARAKRUSEI
NUMBER OF PATIENTS	52 89.7%	5 8.6%	1 1.7%
COMPLAINED OF PRURITIS	50	5	1
COMPLAINED OF DISCHARGE	19	1	0
COMPLAINED OF IRRITATION	4	1	0
SHOWED SKIN INVOLVEMENT	5	0	0
VAGINAL EXAMINATION POSITIVE	40	3	0
HUSBAND HAD PRURITIS	4	0	0

FIG. 4. (Courtesy of Dr. Ross, Duke University.)

Trichomonas produces pruritus and a discharge that scalds the inner sides of the thighs. Trichomonas vaginalis is the only infection that produces a discharge that scalds the patient.

Diagnosis. A fresh smear is made by scraping all the vaginal secretion that one can from the vaginal walls with the posterior blade of a non-lubricated speculum, and all possible secretion is collected with two cotton applicators and placed in 1 cc. of warm normal saline. The tube containing the cotton applicator and saline is inserted into a glass of warm water and examined at leisure within one to twenty-four hours. A stained smear may be used, but is not advocated.

	TYPE 1 SMEAR 63 PATIENTS		TYPE 2 SMEAR 38 PATIENTS		TYPE 3 SMEAR 99 PATIENTS	
	TRICHOMONADS	MONILIA	TRICHOMONADS	MONILIA	TRICHOMONADS	MONILIA
NO.	9	11	13	15	59	31
%	14.3	17.5	34.2	39.5	59.5	31.3

FIG. 5. (Courtesy of Dr. Ross, Duke University.)

There were 462 consecutive pregnant women examined personally by me for Trichomonas vaginalis and Monilia albicans. Of 59 Trichomonas infections, 50 patients complained of a discharge, while 34 of 60 patients with Monilia infection complained of a discharge.

Monilia albicans. This fungus is second to Trichomonas vaginalis as a cause of pruritus vulvae. It produces a persistent chronic and intractable dermatitis of the vulva. The gross lesion is in no way different from that caused by the Trichophyton. Monilia produces a discharge that causes itching, but not a scalding of the inner sides of the thighs. Monilia produces a thick, cheesy secretion here and there on the vaginal walls, if the patient is pregnant, and thin, crumbly to white, round areas if the patient is not pregnant. If the crumbly secretion has been cleaned off by a douche or by some other means, one sees irregular-shaped red areas from 2 to 5 mm. in diameter. Monilia albicans organisms often grow on the perineum and on other parts of the body from which the patient re-infects her vagina again and again. Monilia is sometime found on the glans penis or on other parts of the body of the husband, who re-infects the wife. Moniliasis may affect many parts of the body and produce such lesions as erosions between the fingers, and intertrigo in the groins, axillas, anal folds, and under the breasts. Monilia may become generalized. On the genitals, Monilia infection appears as shiny, red, moist patches. These patches spread by extension and are surrounded by many outlying inflamed small macules or vesicopustules.

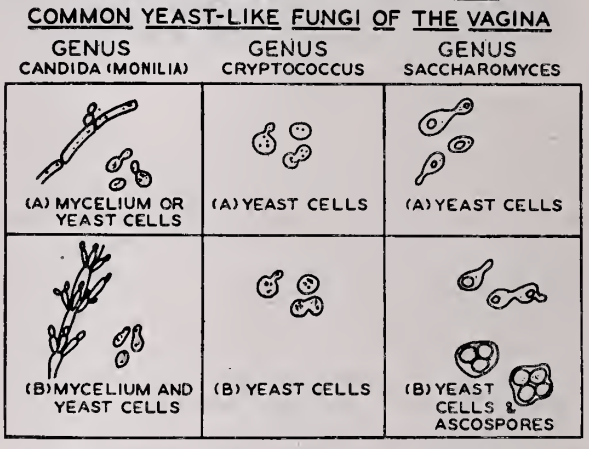
GENERIC CLASSIFICATION OF THE COMMON YEAST-LIKE FUNGI OF THE VAGINA
GENUS CANDIDA (MONILIA)
GENUS CRYPTOCOCCUS
GENUS SACCHAROMYCES
(A) MYCELIUM OR YEAST CELLS
(A) YEAST CELLS
(A) YEAST CELLS
(B) MYCELIUM AND YEAST CELLS
(B) YEAST CELLS
(B) YEAST CELLS & ASCOSPORES

FIG. 6. The generic classification is based on morphology under special conditions of cultivation; i. e., corn meal agar for the formation of filamentous mycelium carrot plugs for the formation of Aseospores. (Courtesy of Dr. Ross, Duke University.)
(A) Direct preparation from patient.
(B) In culture from corn meal agar and carrots.

The most common cause of Monilia of the vagina is a re-infection from secondary foci. I have had 6 private patients whose vaginas became well with no other treatment than getting rid of secondary infection elsewhere on the body.

When Monilia grows in the vagina, it produces organic acids by fermentation. In

some cases the acidity might be quite high, *p*H 3.5 to 3.8. The organic acids are citric, gluconic, fumaric and oxalic. The production of such acid medium tends to destroy vaginal bacteria. On the other hand, in Trichomonal infection, the bacteria produces lactic and acetic acid in small amounts but not acid enough to destroy the associated bacteria.

It is the organic acids that cause the itching and burning in Monilia and Trichomonal infections, because the application of these acids to the vagina causes itching and burning.

Monilia of the labia and vagina produces allergic reactions like most fungi do.

We have inoculated Monilia albicans into a large series of non-pregnant women, which work will be reported later.

Diagnosis. Monilia is diagnosed by gross examination by culture on Sabouraud's media, which is the most accurate method, by gram-stained smears, and lastly by fresh smears while looking for Trichomonas.

Trichophyton trichophytosis. This is an itching dermatitis about the vulva and is frequenty associated with a similar infection of the feet, or athlete's foot. The vagina becomes secondarily infected by the hand (fingers) and this is the most common way by which the vagina becomes infected, as with Monilia albicans. The signs, symptoms and gross lesions are the same as in cases of Monilia and Trichophyton. The diagnosis and treatment is also the same.

Etiology. The causative organism is Tinea trichophytosis. The diagnosis is made by examining the scales from the lesion in a hanging drop of 10 per cent sodium hydroxide and finding of the branching mycelium.

These lesions are diagnosed grossly by the slight reddish irregular areas produced on the labia folds and in the folds of the legs. I have never been able to find Trichophyton in the vagina by making Sabouraud's cultures or gram-stained smears. All the fungi that have been seen in the vagina have had the appearance of Monilia albicans so they were diagnosed accordingly.

Phthirus pubis, simple vulvitis, follicular vulvitis, eczema of the vulva, granuloma inguinalis, lymphogranuloma venereum, condylomata lata, chancroid, and *tuberculosis* sometimes cause pruritus.

CAUSES OF PRURITUS FROM VAGINAL LEUKORRHEA

The following organisms producing vaginal leukorrhea may cause pruritus:

1. *Bacterial.* (3) Staphylococcus aureus, albus and citreus, Bacillus coli, aerobic streptococci, diphtheroid bacillus, anaerobic streptococci, hemolytic and non hemolytic streptococci, B. proteus, B. pyocaneus and M. tetragenus, as well as others. (b) The gonococcus invades cuboidal and columnar epithelium but never keratinized epithelium. It produces skenitis, endocervicitis, endometritis (the endometrium is very rarely infected in non-pregnant women), endosalpingitis, and in the preadolescent or senile vagina, it may cause vaginitis. It gives rise to a greenish-yellow purulent discharge. Gram-negative intra-cellular diplococci are found upon the stained spread. A positive culture may be

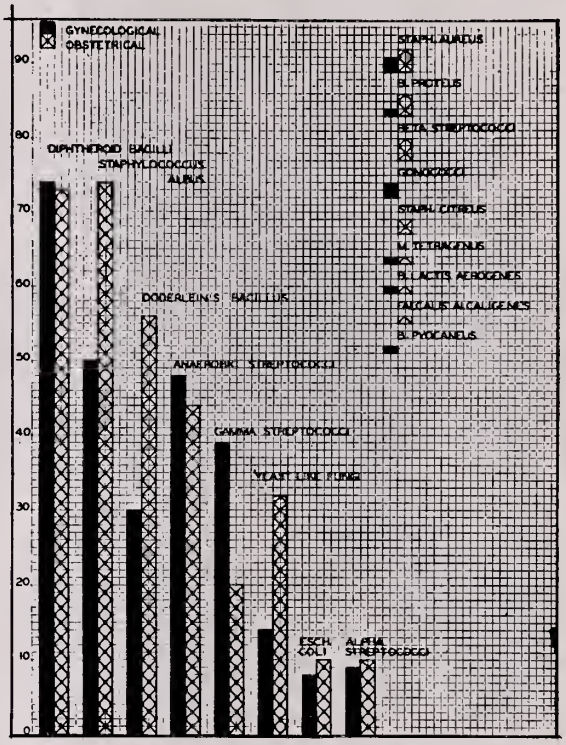

FIG. 7. Bacteriological study of vaginal secretion. (Courtesy of Dr. Ross, Duke University.)

obtained. (c) Ducrey's bacilli usually produce multiple and tiny "punched-out" ulcers in the vaginia. (d) The pneumococcus occasionally causes acute vaginitis in children and produces a heavy inspissated greenish discharge. It is rare in adult women. Encapsulated gram positive diplococci are seen on the stained smear. (e) Staphylococci give rise to an unusually sticky, purulent leukorrhea accompanied by no itching. Sometimes the labia may be matted together. In the stained smear there is a marked dominance of staphylococci. (f) Streptococci produce a red acute vaginitis, with localized irregular areas of subacute vaginitis here and there on the vaginal wall. In the culture and stained smears there is a predominance of streptococci. (g) Micrococcus catarrhalis produces ulceration of the vaginal mucosa

similar to that seen in severe debilitating illness.

It should be especially noted that we have found that no bacterial infection produces pruritus. These secondary invaders help to keep Trichomonads and fungi growing, and they produce the pruritus.

2. *Parasitic Infestations.* (a) Trichomonas vaginalis. The vaginal discharge caused by this organism is the only one that scalds the perineal skin wherever it is in contact with it. (b) Pin worms are usually seen in children, although some cases are encountered among adults (I have seen 3 cases in twelve years). (c) Entamoeba infestation results usually from anal contamination. It may arise through a recto-vaginal fistula. I have not seen a case in the past twelve years of research on the leukorrhea problem. (d) Paramecium vaginitis may arise from a contamination from douche solution, particularly if the water is used from an old well. I have never observed a paramecium infection of the vaginia. It is doubtful if this organism will live in the vaginal canal. Once, in consultation, I was told that the patient had paramecium vaginitis. She had taken a douche that morning with water from an old well. Without douching there were no paramecium the following morning when the smear was examined. There was no clinical evidence of leukorrhea or vaginitis. (e) Ascaris, (f) echinococcus and (g) Filaria bancrofti are other organism which may be rarely encountered.

FIG. 8. Normal glycogen in vaginal mucosa.

3. *Actinomyces—Fungi.* (a) Monilia albicans has already been discussed. (b) Leptothrix is relatively rare; I have seen 28 cases in twelve years. It causes a foul malodorous yellowish discharge. Leptothrix produces ulcers scattered over the vaginal walls. The vagina may give the appearance of having been cauterized. In some cases the appearance of any non-specific vaginal infection is present. Long "stick-like" organisms without buds are seen in the wet and stained spreads. If the patient has recently had an acidulated douche or has had some sort of vaginal acid treatment, this fungus appears as round individual yeast cells which appear to be thicker on one side, in contrast to yeast cells of Monilia which look more like "pollen" cells. (c) Trichomyces negri produces a grayish yellow to dirty yellowish-appearing vaginal discharge. I have observed 3 cases. (d) Trichphyton has already been discussed. (e) Any type of fungi seen on any part of the body will grow only temporarily in the vagina. Most cases of vaginitis caused by fungi are easily cured if the associated foci on the part of the body are destroyed. One must look for and get rid of associated fungus infection elsewhere on the body.

4. *Spirilli.* (a) Spirochaeta pallida. (b) Vincent's spirilli causes the most malodorous vaginal discharge produced by any of the microörganisms. These spirochetes are commonly seen in stained smears. They are found in patients who seldom, if ever, practice vaginal hygiene.

5. *Foreign bodies* can produce a considerable mucopurulent vaginal discharge and a low grade vaginitis from secondary invaders. (a) Masturbation may produce a traumatic vaginitis, which recurs often from unknown cause. There usually exists other associated findings, such as hypertrophy of the right or left labia minor corresponding to the right or left handedness of the patient. Smears and cultures show a predominance of staphylococcus. (b) Contraceptives rarely, if ever, produce a leukorrhea. A reliable house only puts out scientifically tested material, and in the better products one finds chemical agents which prevent leukorrhea. (c) Douches rarely, if ever, produce a leukorrhea if an acidulated douche is used. It is common however when soda, salt, chloride of mercury and phenol preparations are used.

7. *Endocrine Causes of Leukorrhea.* (a) In adolescence there is occasionally a whitish or a whitish yellow discharge. Secondary infection is occasionally seen in the young girl. They usually give no history of contact or coitus. Adolescent "whites" is often seen in the young girl inclined to stimulation of secondary sexual organs from excessive "petting." The sexual urge is aroused. The Bartholin glands and cervix pour out considerable secretions. This may happen through the so-called center in the brain or by manipulation of the external genitalia by the

male. A wet spread will show, in most cases, only an excess of vaginal epithelial cells and an increased amount of mucus. (b) Senile. Due to loss of estrogens, the thick vaginal mucosa may lose its two upper layers and leave but the basal cuboidal layer or no layer at all. This results, in some cases, in an adhesive vaginitis. These ulcerated areas are easily infected as a result of the loss of local resistance. (c) Ovulation. The so-called ovulations leukorrhea may be normal, although at most it is only a slight increase in the amount over the normal amount of secretions. It is said to be profuse in women who have an abnormal enjoyment of sexual life and is supposed to be heavy in the individual who has an organism with most of the coital embraces. (d) Artificially stimulated leukorrhea. When one gives 1.0 to 5.0 milligrams of diethylstilbestrol daily for ten or more nights, there is generally a profuse clear cervical secretion due to the stimulation of the cervical glands by the synthetic estrogen. There is no condition that stimulates this condition other than the cervix during pregnancy. (e) Premenstrual and intermenstrual leukorrhea. The secretory action of the corpus luteum of the ovaries upon the endometrium premenstrually and intermenstrually may produce excessive secretion of mucus. (f) Vitamin—riboflavin and B_1 deficiency may produce small blisters around the introitus. This deficiency is characterized by a peculiar bluish or scaly skin around the introitus. It causes pruritus.

TREATMENT

In the pathological vagina there are four categories of decreased physiological activity, the well known "four hypos": (1.) a decrease in the hydrogen ion concentration (*p*H) of the vaginal secretions. (Hypo-acidity); (2.) a decrease in the glycogen content of the epithelial cells of the vagina. (Hypo-glycogen); (3.) a decrease in the normal bacterial flora of the vagina, i. e., Doderlein bacilli. (Hypo-doderlein); (4.) a decrease in the height of the vaginal epithelian strata. (Hypo-epithelial cells).

The decreased acidity is the most important of them all, while the remaining three decreased biological functions are directly concerned with this hypo-acidity. It is the *p*H of the drug rather than the constituents of the drug that clears up vaginal infections. Excess cervical discharge which is alkaline tends to favor the growth of trichomonads and fungi by causing a hypo-acidity. One must be sure to clear up all associated cervical ulcers, ectropion or endocervicitis by a cauterization, coagulation or conization. If the patient is near her next menstrual period, 8 floraquin tablets should be inserted and then the patient should be advised to insert one of the same tablets night and morning up to and during her next menstrual period. One to five days after menstruation ceases, the cervical lesion should be treated followed by the use of Ortho-jelly or floraquin tablets.

Trichophytosis and Moniliasis treatment—The perineum should be shaved. One floraquin tablet should be inserted night and morning for from twelve to fourteen days with no douches. An ointment of 20 per cent zinc oxide with 6 grains of salicylic acid

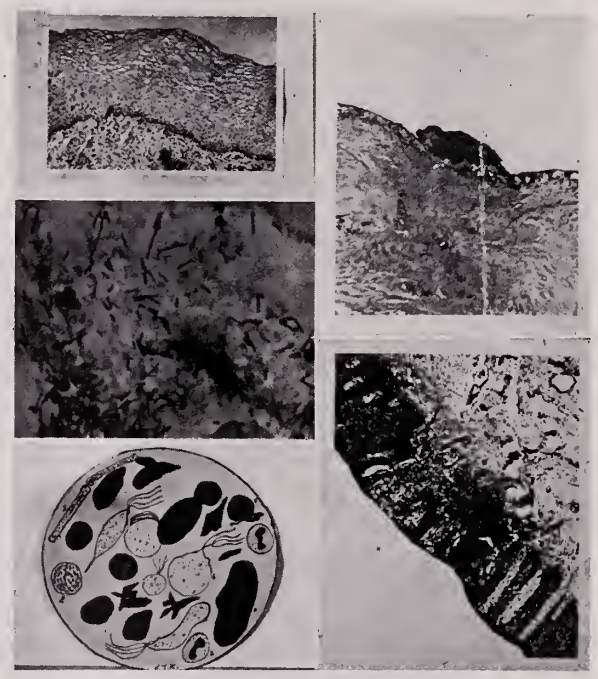

FIG. 9. Normal and senile vaginal mucosa. Trichomonas vaginal mucosa. Trichomonal and Doderlein smear.

is applied in a thin layer to the involved areas whenever itching occurs, until a cure is effected. This medication prevents itching. If the above preparation does not control the itching, then a wet dressing is applied of salicylic acid 1.5 per cent, boric acid 1.5 per cent, thymol 1.5 per cent, made up in 8 ounces of 25 per cent ethyl alcohol. This mixture is applied three to four times a day on cotton. At night, the perineum is covered with saturated solution of boric acid on cotton laid flat. Phenyl mercuric nitrate ointment has been found to be of no value. This is true of all ointments and solutions that do not peel off the upper layer of the skin. If the secondary foci is removed, the patient's vaginitis will be easily cleared up.

The infected parts are to be kept as dry as possible, so no tub baths are allowed. If

sponge baths are desired, the infected part must be protected from soap and water.

Vulva Moniliasis Treatment.—The same measures are used in Trichophyton infection. In the persistent case, the fungus must be grown in culture, suspended in saline solution, and desensitization accomplished by subcutaneous injections. This procedure is yielding poor results in the majority of our cases. In only a very few cases has desensitization been accomplished. In prolonged and severe cases, simple dessication of the lesion has given better results. A series of cases—treated with x-rays by dermatologists have been relieved by superficial dessication of the lesion or lesions. Dessication is better than x-rays because only the thickness of the skin has to be considered.

Senile Vulvitis Treatment—Diethylstilbestrol, 0.1 milligram, should be given nightly until the pruritus is controlled. If no results are obtained following the use of diethylstilbestrol, an ointment should be added as described under treatment for fungi infections. Gentian violet is no longer used. Yet the vaginal *p*H is not markedly altered after gentian violet application. Examples of the vaginal *p*H before and after 5 per cent gentian violet in 15 per cent ethyl alcohol has been used, follow:

	BEFORE	AFTER
P. F.	4.48	5.56—Posterior Fornix
A. F.	5.07	5.47—Anterior Fornix
L. L. W.	4.69	4.56—Left Lateral Wall
R. L. W.	5.07	5.13—Right Lateral Wall

Rarely has cutaneous x-ray therapy been indicated in any case of pruritus vulvae during the last twelve years of our leukorrheal research. About one-fourth of the patients with pruritus vulvae referred with a history of previous x-ray therapy, reported no results from it. Simple superficial excision of the pruritus area or areas gave excellent results.

CONCLUSIONS

There are but two conditions, Trichomonas vaginalis and fungi (Monilia albicans and Trichophyton) that were causes of 97 per cent of pruritus in my gynecological cases during the past twelve years.

If there are no associated cervical infections, a cure may be effected if the vagina is acidified with Floraquin and followed in twelve days with vinegar douches.

If there is the slightest ulcer or ectropion of the cervix, the lesion should be cauterized, coagulated or coned. This procedure should be carried out on the last day of the patient's menstruation, or within five days after menstruation ceases, so that the operated area will be healed by the time the next menstruation begins. Immediately after the above treatment, a small piece of cotton, about the size of a man's thumb, should be placed in the coned area or against the coagulated or cauterized area. This should be followed by the insertion of from 4 to 8 floraquin tablets or two doses of Orthogynol jelly. Then more cotton and jelly or tablets should be inserted until the vagina is completely and tightly filled. This pack is changed twice weekly for three weeks. Also, the patient should be directed to use the keratolytic agent given above or any other one that one wishes.

Monilia and trichophyton infection can be cured by removing the skin layers in which they are embedded. Ointments, salves, and other medication not containing keratolytic substances, have been of no value in my cases.

It is the *p*H (acidity) of the drug rather than any constituent in the preparation that is of benefit in the treatment of vaginal infections. It appears that the *p*H (acidity) is also of importance in getting rid of the fungi from the labia. Salicylic acid, 0.5 per cent, has a *p*H of 2.74, which is also highly acid.

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326 Medical Arts Building.

ABSTRACT OF DISCUSSION

Dr. B. H. Passmore, San Antonio: The subject of pruritus vulvae is always important and with the many factors entering into its etiology and their relation to sex physiology and skin pathology, it opens up an endless chain of discussion.

Dr. Karnaky's paper represents a great deal of work over a long time and centers about the pathological vaginal secretion. The vulva is unfortunately situated. Friction from clothes and from rough bath towels, pressure on superficial vessels from prolonged sitting, lack of proper dryness due to poor ventilation, and contamination and irritation from excretions and secretions, all may enter into the etiology. Leakage from the urethra, though small in amount, may cause extensive skin changes. Contamination with fecal matter may occur. As Dr. Karnaky pointed out, contact allergy may play a part. The patient may be allergic to rayon pants, vulva pads and powder, soaps (Life-Buoy soap is a frequent cause, even when it is only kept in the same soap dish with the soap used).

The accumulation of vaginal and glandular secretions due to lack of cleanliness is an occasional cause. Vaginal secretion varies in amount, due to estrogen stimulation at different periods, as well as phychical causes. Secondary sex stimulation from visual to physical can cause constant and prolonged mucus secretion. Psychoneurosis is rarely a cause; more frequently the cases so diagnosed are due to skin changes of the internal surfaces of the vulva that are overlooked.

Kraurosis of long standing may cause pruritus after many years and leukoplakic vulvitis causes intense pruritus.

There are many women infected with trichomonas, and some with fungi, that do not have pruritus.

Many women douche daily because of an odor that comes from the skin between the minor and major labia, thus increasing the vaginal discharge and the wetting of the already water-logged skin, with the decomposition of the vaginal discharge produced by the douche, on contact with the air, intensifies the odor and then the douching is increased, so that two or three times a day may be the rule. In addition to this, the practice of some physicians of prescribing a prolonged hot douche in a bath tub is an ideal way of keeping the vulva water-logged. It would be sad to see what would happen to the skin of the face if it was subjected to this treatment. This goes on for many years, and it is small wonder that permanent skin changes occur. Protection of the skin by Mennen's baby oil and the use of Meds, saturated with the same oil, to stop the vaginal secretion, helps. The exclusion of water is imperative.

I was very glad to hear Dr. Karnaky advise the discontinuance of all douching during the treatment with the floraquin tablets, and if he would go a step further and advise his patients never to return to douching, there would be much fewer recurrences.

Dr. Karnaky (closing): I wish to thank Dr. Grogan and Dr. Passmore for discussing my papers. Women in war work, who wear overalls and perspire a great deal or become wet from perspiration have more fungi infection than they did before doing such work. Dr. Passmore mentioned that tub bathing causes ectropion of the cervix. I have no scientific proof of this, but I see many ectropions of the cervix in the Cervicitis Clinic at the Jefferson Davis Hospital, Houston, in poor Negroes who do not own tubs to bathe in. My impression would be that tub baths do not cause ectropion, but that they are caused by lacerations of the cervix at childbirth, or infections with micro-organisms.

Cervicitis is the most common cause of leukorrhea, and if one will be sure to take off all ectropions of the cervix to be followed by simple vinegar douches, he will cure many more of his leukorrhea cases without the use of floraquin and other preparations. In my twelve years of leukorrhea research I have not seen a cervix that needed an amputation. Since the advent of the conization machine this is still more true.

Dr. Grogan, like Dr. H. Gardner, believes that Monilia (fungi) grows better in acid media. This is not true, in my opinion, because I have pure cultures of Monilia growing at all *p*H's from 3.5 up to 8.11, so I still do not believe one should use soda douches for any condition of the vagina. The normal vagina is highly acid and acid douches, as we have proved, are far superior in Monilia, and in all vaginal infections. Let us keep using the normal psysiological vinegar douche.

Dr. Grogan mentioned the use of sulfa drugs in the vagina for Monilia (fungi). We did not obtain any more good from that than if we used dry kaolin. Sulfathiazole is highly alkaline and is not advocated in the vagina. The vagina should be acidified. We do no conizations during pregnancy; we do "whole erosion" technique in our clinics, we see no scientific use for streak cauterization. If the patient is from two to three months pregnant, we cauterize one-fourth of the cervix and let this heal and then do another quadrant until the ectropion is healed.

Monilia is easily cured but it recurs from some other place on the patient's or husband's body. Monilia recurs over and over.

Trichomonas vaginalis is easily controlled with simple vinegar douches, especially during menstruation.

ADVANCES IN THE TREATMENT OF VARIOUS FORMS OF MENINGITIS

ROBERT L. MOORE, CAPTAIN, M. C., A. U. S.

The introduction of sulfanilamide led to a marked improvement in the prognosis of most of the acute meningitides. It is the purpose of this paper to report on the present treatment of the more common infections of this type and to add a few case reports to the ever growing series of successfully treated cases in the present-day literature.[7, 16, 17, 11, 12]

The five common causes of bacterial meningitis are the tubercle bacillus, the meningococcus, the influenza bacillus, the pneumococcus and the beta hemolytic streptococcus. The staphylococcus, non-hemolytic streptococcus, Friedlander's bacillus, and the colon bacillus are much less frequent causes. This paper will be limited to the four common acute types of infection, omitting a discussion of tuberculosis meningitis and those less frequent acute forms.

By far the most common type of acute meningitis is that due to the meningococcus. This disease occurs both sporadically and in epidemic forms. There is always an increase in its incidence during times of war. This has been true in this war as well as in World War I. The accompanying graph (Fig. 1), taken from Startwell and Smith,[11] compares the incidence in the Army during these two peri-

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ods. As can be seen, the incidence in the two wars is not markedly different. This would be a very discouraging picture, except for the fact that, while we have been unable to lower the incidence appreciably, there has been a remarkable improvement in the mortality. During World War I there were 5,839 cases in the Army with 2,279 deaths,[15] a mortality of 39 per cent. While, of course, there can be no statement as to the exact number of cases in the Army up to the present in this war, there have been several large series reported from various hospitals and commands of the Army. The mortality in these cases has been between 3 and 4 per cent instead of the 39 per cent mortality during World War I.

I have collected and wish to report a relatively small series of cases. This is a heterogeneous group. It is made up of all the cases of meningococcic meningitis which have occurred at The Children's Medical Center and Parkland Hospital of Dallas, and those which have been admitted to the station hospitals of four of the Army Air Fields in Texas during the past two years. The advantages of such a mixed group seems to us to be obvious. It is conceivable that in one large institution, where there is a particular set-up for the care of a certain disease, a lower mortality might be expected than could be obtained in the average institution, and consequently a somewhat distorted picture of the status of that disease might be drawn. A mixed series such as this will probably give a truer picture.

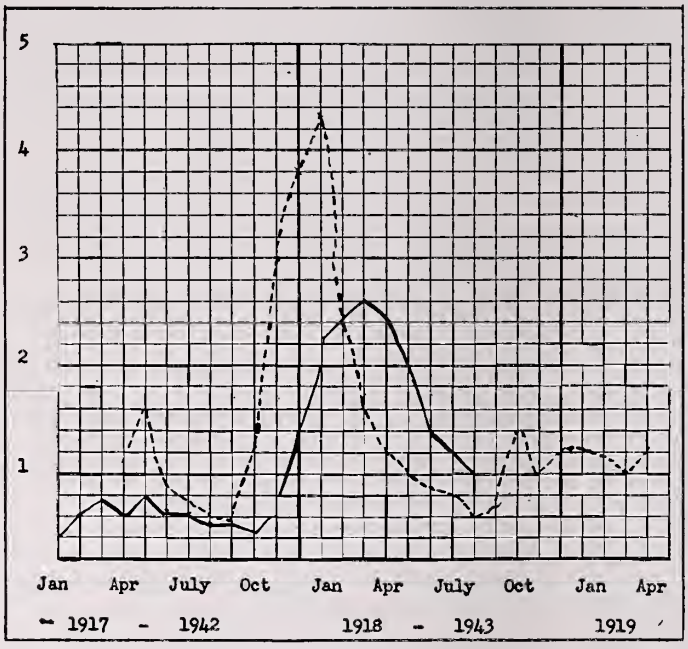

FIG. 1. Occurrence of meningococcal meningitis in the U. S. Army in the periods 1917 to 1919, and 1942 to 1943, the first period being indicated by a dotted line on the graph and second by a solid line. The rates are figured per 1,000 per year, by months.

There are 48 cases in this series. The youngest patient was 20 months, the oldest 60 years. Some were seen early, some late in the disease. Some were given serum along with a sulfonamide, but most of them were treated with the drug alone. Some of the dosages were large and, in a good many instances, they were small. In spite of all the variations, there were but two deaths, a mortality of 4.17 per cent.

Second in importance only to meningococcic meningitis, to those who are primarily interested in diseases of children, is meningitis due to the influenza bacillus. At least 60 to 85 per cent of these cases occur between the ages of 2 months and 3 years. This is, and has always been, a particularly fatal type of meningitis. Until very recent years there had been occasional single case reports of recovery, but the mortality was somewhere between 95 and 100 per cent. It is probable that the reason for the prevalence of this disease in infants and for its high mortality is the absence of any bactericidal power for this organism in the blood of infants below 3 years. After 3 years the bactericidal power gradually rises and appears to be permanent in adult life. This has been shown by the studies of Fothergill and Wright.[8] It was hoped that the sulfonamides would be effective against this infection and it can be truthfully said that they were to some extent. More recorded recoveries began to appear in the literature, but the decrease in mortality was not too significant.

Much work has been done in an effort to develop a specific serum which would be effective. The first to show promise was that developed by Fothergill, which had to be given intrathecally along with a small amount of normal human serum for complement. Later Alexander[1] developed a rabbit serum specific for type B influenza bacillus, which causes 95 per cent of these meningitides, which seems to be much more effective. She reports a series of 75 cases treated[2, 3] with sulfonamides and type specific rabbit serum, with 56 recoveries. This is far and away the best result ever reported in this disease.

There have been 6 cases of influenza meningitis at The Children's Medical Center during the past two years, all of which were treated with sulfadiazine. Three of the six patients died. Two of the six were taken from the hospital spastic and idiotic, and they presumably remained in that state or

died at home. There was but one recovery; that occurred in a 4-year-old boy who had, in addition to sulfadiazine, Fothergill's serum and complement. None of these children had Alexander's rabbit serum.

Pneumococcic meningitis is the third of the common purulent meningitides. Until a few years ago this too was almost invariably fatal. Although a rare case report of recovery appeared, the overall mortality was above 99 per cent. More recently the combined use of chemotherapy and serum has lowered the mortality to between 30 and 60 per cent.[9] In children, and particularly in infants, the mortality is still very near to 100 per cent. We have collected 11 cases which have occurred at The Children's Medical Center and Parkland Hospital in the last two years. Eight of these 11 cases were in children, and 4 of the 8 were under 1 year. These were all treated with sulfonamides, and most of them with a sulfonamide and a type specific serum; there was but one recovery, a mortality of about 90 per cent. The one recovery was in a girl of 6 years, who developed a type 4 pneumococcal meningitis secondary to an ear infection. She was treated with sulfapyridine and serum, and recovered without residual. Certainly it can be said that the treatment of penumococcal meningitis has not advanced as far as that of some of the other types. Penicillin may improve this status.

There has been an extraordinary decrease in the fatality rate of hemolytic streptococcus meningitis since the introduction of sulfanilamide. The total number of reported recoveries in the literature up to 1937 was 108. Practically none of the reported cures occurred in children under 10 years. The overall mortality could safely be said to have been about 97 per cent. Since the advent of sulfanilamide and its derivatives, this mortality has decreased to between 20 and 40 per cent. It is still a highly fatal disease in infancy, but that some small infants can recover is illustrated by the following summary of the case of a 2-month-old baby I had the good fortune of seeing the past winter.

The patient was the daughter of an Army sergeant, who brought her into the hospital with the complaint that the baby cried whenever her arms or legs were moved. This behaviour had started about twenty-four hours before admission and the irritability seemed to be definitely increasing. On physical examination there seemed to be pain on movement of the extremities, and the baby tended to lie in the position of one who had the pseudoparalysis of congential syphilis or scurvy. The temperature was 100.4 F, rectally, and there were no other abnormal physical findings except a bulging fontanelle.

Roentgenograms of the long bones were normal. Lumbar puncture revealed a cloudy fluid under increased pressure. The cell count showed 4,000 white cells, of which about 98 per cent were polys. There were, on smear, a few gram positive cocci, in pairs, and short chains. An attempt was made to type them with pneumococcus typing sera, but they did not type. On culture they were shown to be B hemolytic streptococci.

Large doses of sulfadiazine were started. For the first two days and nights it seemed most unlikely that the baby could survive. She was cyanotic and had Cheyne Stokes respirations, with long periods of apnea. There were frequent generalized convulsions. However, after the first two days there was marked improvement and from all appearances she seemed on the road to recovery. In spite of her apparent improvement, two findings remained which made the outcome seem doubtful. The spinal fluid continued to show cultures of hemolytic streptococci and the white blood count stayed above 20,000. This seemed to indicate that the infection was being held in check, but not being eliminated.

On the seventh hospital day the child suddenly took a definite turn for the worse. She began to have convulsions again, became extremely cyanotic and again had irregular respirations. She was given transfusions and one dose of scarlet fever streptococcus antitoxin. The next day she was not improved. It was decided to attempt to get some penicillin for her. This was obtained and started on the tenth hospital day. Twenty-five hundred units of penicillin were given intrathecally once daily for five days, and 5,000 units intramuscularly every three hours for the same period. The intramuscular dose was decreased then to 5,000 units every four hours. This therapy was continued for a total of two weeks. The sulfadiazine had been discontinued with the beginning of the penicillin therapy, because it seemed incapable of sterilizing the spinal fluid. However, the fluid obtained by the very lumbar puncture that was done to give the first intrathecal dose of penicillin was reported sterile. Because of this, the sulfadiazine was started again and was continued along with the penicillin. Improvement was rapid, steady and complete. Now, at the age of about 5 months, the baby is well and normal.

Recovery from streptococcus meningitis at this age is so unsual that it seemed worth reporting this case in some detail. It would be impossible to say which drug was responsible for her recovery. Certainly the sulfadiazine kept her alive and halted the progress of the disease, but to those of us who saw her, it appeared that the penicillin seemed to be the extra force needed to cause complete recovery.

There were no cases of streptococcal meningitis from the station hospitals visited and only one case from The Children's Medical Center and Parkland. This, too, occurred in a 2 months old baby who was treated with sulfadiazine, but failed to recover.

After having briefly described the present status of treatment of the four common types of meningitis, I should like to discuss treatment in more detail. I shall discuss it from the standpoint of the different materials available for combating these infections. These will be taken up in the following order: (1) the use of the sulfonamides, (2) the use of serum, (3) the use of penicillin, (4) surgical procedures.

THE SULFONAMIDES

Immediately upon the diagnosis of a purulent meningitis, one of the sulfonamides should be started. Before giving the drug, samples of the spinal fluid and of blood should be taken for bacterial study, but the beginning of treatment must not be delayed for a report. According to Finland and Dingle, in reviews of the treatment of meningitis, the drug of choice is sulfadiazine. While some still use sulfapyridine, and an occasional case is treated with sulfathiazole, the vast majority of physicians agree that sulfadiazine is the drug of choice. Sulfathiazole has no greater theraputic effect than sulfadiazine and has the distinct disadvantage of a definitely lower diffusibility into the spinal fluid. Occasionally when there is an idiosyncrasy or a severe toxic reaction to sulfadiazine, sulfathiazole may be indicated. Sulfapyridine enters the spinal fluid as well and has perhaps as great an effect on most of the organisms as sulfadiazine, but toxic reactions are much more frequent.

Sulfadiazine should be given in such amounts that the blood level will be maintained at somewhere between 10 and 20 milligrams per hundred cubic centimeters. I like to give the first dose intravenously in order to assure an immediate high level. If the patient is comatose or vomiting, the intravenous route is continued. If there is no coma and the medication is retained by mouth, it is given orally after the first dose. We have set up this routine in our own hospital, and so far it has been very successful. The initial dose is 5 Gm. given in 1,000 cc. of normal saline intravenously, followed by 2 Gm. by mouth every four hours for the next twenty-four hours. Usually by that time the patient is markedly improved and the dosage is cut to 1 Gm. every four hours. Blood levels are always taken frequently, and in case of necessity the dose is lowered or increased to such a point that the desired level is maintained. This dosage will usually maintain such a level. The drug should be continued for five to seven days after the temperature and spinal fluid become normal in cases of meningococcal meningitis; for ten days to two weeks in the other types after recovery is apparent.

In infants and children a corresponding dose may be given. Ordinarily 1½ grains per pound of body weight for the first dose and then 1½ grains to 2 grains per pound per day will be sufficient. One should not hesitate to give larger doses if necessary to maintain an adequate blood level. It may well be argued that such high levels are not always necessary, particularly in meningococcal infections. Recoveries from this infection frequently occur with levels much below these recommended. Lower concentrations rarely lead to recovery in pneumococcal, influenzal or streptococcal mengitides, and, if one expects to get the highest possible percentage of cures in meningococcal meningitis, such levels are advisable.

While sulfadiazine is generally less toxic than the other sulfonamides, it has the unfortunate property of developing an acetylated form which precipitates in acid urine. There may be hematuria, oliguria or anuria due to complete blockage of the tubules or ureters. This type of block may be relieved by cystoscopy, catheterization of the ureters and irrigation with an alkaline solution. Having observed several such reactions, we have made it routine to keep the urine alkaline by the administration of sodium bicarbonate throughout the period of sulfadiazine medication. It has been found necessary to give an initial dose of about 5 Gm. of sodium bicarbonate and then about gram for gram of the sulfadiazine. It is wise to test the urine daily for alkalinity. In addition we keep the fluid intake above 3,000 cc. daily and the output above 1,500 cc. We believe these two precautions are essential. Since following this routine we have had no cases of hematuria or anuria. Sulfadiazine crystals are absent in the urine so alkalinized.

Prophylatically sulfadiazine has been found to be of value. As has been shown many times there is normally a meningococci carrier rate of 1 to 2 per cent. During an epidemic this may increase to around 30 per cent. Cheever, Breese and Upham[5] have demonstrated that this carrier rate can be reduced to practically nothing by the administration of small doses of sulfadiazine to all the men in a squadron or barracks where such a high rate prevails. Such a reduction in the number of carriers will undoubtedly decrease the spread of the infection and consequently decrease the number of cases.

SERUM THERAPY

Before the advent of chemotherapy, serum therapy was definitely assuming a place of greater and greater importance in the treatment of various infections. The highly successful use of the sulfonamides in many diseases for which serum had previously been indicated, caused a rapid decline in the status of this type of therapy. This was rightly so because the sulfonamides gave much more satisfactory results in certain infections, more easily, more cheaply and with fewer undesirable reactions. However, sera can not be discarded completely. There are still several diseases which do not respond well to

chemotherapy for which there are successful specific sera. As far as meningococcic meningitis is concerned most cases do not require serum. However, when there is no response to chemotherapy within twenty-four to thirty-six hours, when there is a very fulminating type of infection or when toxic reactions prevent the use of sulfonamides, serum may be life saving. It is given in conjunction with the sulfonamide except, of course, when the sulfonamide is causing a toxic reaction. An attempt should be made to see if the serum to be used agglutinates the organism which is present. If it does not, little aid can be expected from it. At the present time antimeningococcal serum is not given intrathecally, but is given intramuscularly or intravenously. When given it is usually repeated in twelve to twenty-four hour intervals until improvement occurs. Serum sickness a week or so later is common, but not usually severe. The regular precautions for the administration of any serum are followed.

Alexander has demonstrated both experimentally and clinically that a combination of type specific rabbit serum and sulfadiazine show greater effect on the hemophilus influenzae than do either alone, and that mortality of influenza meningitis may be decreased markedly by such a combination. The dosage recommended by Alexander for infants and children is 25 mg. of antibody nitrogen given intravenously immediately, and 75 mg. are diluted in 200 to 300 cc. of Ringer's solution and given intravenously over a period of two hours. Serum is continued until the spinal fluid is sterile, the sugar and chlorides are rising, the protein and cell count are falling, and an excess of antibodies in the blood in shown to be present by the fact that a 1:10 dilution of the patient's serum produces capsular swelling.

In pneumococcal meningitis, serum is also used routinely along with sulfadiazine. The pneumococcus found in the spinal fluid is immediately typed and the type specific antipneumococcus (rabbit) serum is given intravenously in doses of 200,000 units or more, sufficient to obtain a positive balance of antibody as shown by a positive Neufeld or Sabin test with the patient's serum.

In hemolytic streptococcal meningitis there is no indication for serum therapy.

PENICILLIN

A new and powerful therapeutic agent has recently made its appearance which gives great promise of solving some of the difficulties still remaining in the treatment of some of the meningitides. Penicillin has been shown to be very effective in the treatment of infections due to the meningococcus, pneumococcus, streptococcus, and staphylococcus.[10] A few cases of meningeal involvement by these organisms have been reported cured by its use. It apparently has no effect on the influenza bacillus. Penicillin is not diffused into the spinal fluid, and in order to obtain the best therapeutic results in meningitis, it must be given intrathecally as well as intramuscularly or intravenously. Much more work will have to be done before the exact effective dosage can be determined and before any definite statement about its effectiveness in the treatment of the meningitides can be made.

SURGICAL TREATMENT

Meningococcal and influenza bacillus meningitis are usually primary, but pneumococcal, streptococcal and staphylococcal meningitis are often secondary to infections elsewhere. The most common sources are the ears, mastoids or sinuses. If such a focus is present and surgical drainage will help that focus to clear up more rapidly, it should be done. Many times the difference between success and failure in the treatment lies in adequate drainage of the original site of infection.

SUMMARY

1. A discussion of the present status of the treatment of meningitis due to the meningococcus, the influenza bacillus, the streptococcus and the pneumococcus is given.

2. Forty-eight cases of meningococcic meningitis treated with sulfonamides are reported. There were two deaths, a mortality of 4.17 per cent.

3. The mortality rates for the other three types have dropped considerably with the newer methods of therapy, but not to the degree that the meningococcic infection has.

4. The most essential factor in the successful treatment of these diseases is the administration of a sulfonamide in amounts sufficient to keep up an adequate blood level. This level should be 10 mg. per hundred cc. or higher.

5. In addition to the sulfonamide, serum should be used in influenza bacillus and pneumococcic meningitis. In the former, the type specific (type B) rabbit serum developed by Alexander and, in the latter, type specific antipneumococcic serum. Sera should be given intravenously and intramuscularly, not intrathecally.

6. Penicillin may be of great additional help, particularly in streptococcic and pneumococcic meningitis. When used in these infections it must be given intrathecally for best results, as well as intramuscularly or intravenously because it does not diffuse well

into the spinal fluid from the blood stream. It is too early to be able to give any exact data on its effectiveness.

7. Surgical drainage of the original focus is often desirable in the secondary types of meningitis.

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NEED NOW IS FOR 16,000 NURSES

The Army needs 16,000 additional nurses immediately in order to care adequately for wounded and sick American soldiers, according to Major General George F. Lull, Deputy Surgeon General.

During the first two weeks of February, 1,450 registered nurses received commissions as officers in the Army Nurse Corps. This is an increase over the 1,050 commissioned in January, but the total number of nurses is still far short of the Army's immediate needs.

With the flood of new patients from overseas, the authorized ceiling for the Corps was recently raised from 50,000 to 60,000. At present it numbers only 44,000 and about 250 nurses a month are separated from the Army for various reasons. About 71 per cent are overseas, some having been in foreign theaters for several years. Incidentally, a more effective rotation plan for these overworked nurses will be possible when the full quota of 60,000 is reached.—S. G. O. Notes, February 28, 1945.

SPONTANEOUS FRACTURES OF THE RIBS IN HEALTHY INDIVIDUALS

TOM B. BOND, M. D.
FORT WORTH, TEXAS

A very casual review of the literature reveals many cases of fractured ribs from coughing in tuberculosis patients. These fractures are attributed to the decalcification of the bones and the general debility of the patient rather than to muscle contraction. Also several cases are reported due to muscle contraction in robust men while lifting heavy objects.

CASE REPORTS

CASE 1. A woman, age 30, gave a history of acute respiratory infection. She was only slightly ill; she had never been confined to bed. She had a severe cough. During an attack of coughing, she stated that she developed a sudden severe "pleurisy" (patient's own diagnosis). An x-ray examination was made to determine the presence of pulmonary pathology. None was demonstrated. In three weeks the patient returned to the hospital complaining of a bilateral "pleurisy" (patient's diagnosis). She had no fever. The cough had not completely subsided. X-ray examination revealed partly healed fractures of the middle thirds of the shafts of the right seventh and eighth ribs. On reviewing the original films the fracture lines were demonstrated. The patient made an uneventful recovery and has remained well for the past two years.

CASE 2. A married woman, age 24, gave a history similar to that of the patient in Case 1. She had had a severe attack of "pleurisy" (patient's diagnosis), which was subsiding. The cough at this time had diminished appreciably. Examination was made to determine the presence of pulmonary pathology. Partly healed fractures of the right eighth and ninth ribs, fractures of the left sixth, seventh, eighth, and ninth ribs were revealed. This patient made an uneventful recovery and has remained well for more than a year.

CASE 3. This case is reported through the courtesy of Dr. C. A. Stevenson, Scott and White Clinic, Temple. I have known the patient for many years and her general health is good. She gave a similar history to the patients in Cases 1 and 2. Examination was made about ten days after the patient first complained, and fractures of the right ninth and tenth ribs were found.

The fact that three cases reported here occurred in females probably has no special significance, and I merely present them to demonstrate that an apparently healthy individual can cough sufficiently hard to fracture one or more ribs. This type of fracture appears more often in females, and in my opinion is a fatigue fracture similar to the march fracture found frequently in new recruits and others undergoing unusual physical exertion. The mechanism is similar. The movement of the ribs is comparable to the movement and stress on the metatarsal bones.

Major Louis W. Breck, M. C., Station Hospital, Camp Swift, Texas: Dr. Bond's paper has inter-

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ested me very much as the subject of spontaneous rib fractures, not of the pathological type, is an intriguing one. It has occurred to me that these are a form of fatigue fracture, of which the "march fracture" so commonly seen in the Army is the most common example. There are 25,000 steps in a 25 mile hike, which causes a "crystallization" or molecular re-arrangement of the calcium phosphate in the involved metatarsal. It would seem that prolonged intense coughing would spring a rib a great many times and a similar phenomenon take place. I would like to have Dr. Bond elaborate on this phase of the subject and want to congratulate him on a most interesting paper.

MALIGNANT TUMORS OF THE TESTIS

C. H. FRANK, M. D.
TEXARKANA, TEXAS

Malignant tumors of the testis are not common. Hinman gives the incidence as 0.58 per cent of malignant tumors in the male. Chamberlin and Jamison found them to comprise about 1 per cent of all cases of malignancy at the University of Pennsylvania Hospital. This is the incidence given by Gilbert.

Though the incidence is small the majority of these tumors are radiosensitive and if diagnosed and treated before metastasis is evident, many 5 or 10-year cures may be obtained in an otherwise invariably fatal disease. Since nearly all tumors of the testicle are malignant it is imperative that this diagnosis be given careful consideration in every case of testicular swelling rather than excluded or considered inflamatory because malignancy of the testicle is so rare.

PATHOLOGY AND ETIOLOGY

Ewing believes that practically all tumors of the testis arise from totipotent sex-cells, and that the monodermal forms represent one-sided development of tridermal tumors. He classifies them into three main groups and a fourth miscellaneous group of rare tumors, as follows:

1. Adult embryomas or teratomas.
2. Teratoid, embryoid, or mixed tumors.
3. Embryonal malignant tumors, including sarcoma of the testis, seminoma, and embryonal carcinoma with lymphoid stroma.
4. Miscellaneous tumors of the testis and associated structures (rare).

The adult teratomas contain a mixture of differentiated tissue and are usually benign. Their clinical course is usually slow, many are present at birth, and they offer a relatively fair prognosis. However, they occassionally contain malignant areas from which metastasis may develop.

Mixed tumors consist chiefly of epithelial tissue, myxomatous tissue, and cartilage and are apparently the most malignant type.

Embryonal tumors are the most common. This type includes seminoma and appears to be made up of immature epithelial cells but they have occasional areas of cartilage or other tissues showing them to be teratomata.

The most common of the miscellaneous tumors is chorionepithelioma, which has the same histological structure as in this same tumor of the uterus and which gives the highest prolan A output of testicular tumors.

The great majority of these tumors occur in the third and fourth decades of life in the period of greatest sex activity. Teratomas are most frequent in the ages of 20 to 30 years, and seminoma in the ages of 30 to 40 years (Simpson). They may occur, howver, in infancy or at any later time.

Trauma is sometimes given as a cause, especially by the patient, but it is generally believed that trauma is more likely to lead to the discovery of a pre-existing tumor.

Cryptorchidism may be a predisposing cause but the relation of this anomaly to tumor is not yet settled. McKenzie and Ratner do not believe that malignancy occurs in undescended testicle more commonly than in normal cases. On the other hand Higgins and Buchert believe there is a definitely higher incidence in cryptorchids, their incidence being 8.43 per cent.

Bilateral primary malignancy in the testicles is rare. Graves and Lawrence report a case but state that bilateral metastasis to the testis from neuroblastoma, though rare, is more common than bilateral primary testicular tumors.

SYMPTOMS

The most important symptom is painless swelling of the testis involved, usually with a sensation of weight and fulness. Rosenblatt, *et al.*, found painless swelling in 53.6 per cent of 29 cases, and pain in 41.2 per cent of these cases. Enlargement was the chief complaint in 83 per cent of Higgins and Buchert's cases.

Constitutional symptoms, abdominal cramps, weakness, loss of weight, anorexia, and pain in the back are common but are almost always signs of metastasis. In secondary growths, symptoms depend on the location and often overshadow the original growth.

The first signs may be due to involvement of the paraaortic nodes which are the regional nodes draining the testicle. Thus a tumor in the epigastric region with nausea, vomiting, ileus, pressure on the inferior vena cava, compression of the ureters, or invasion of

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the vertebrae with cord symptoms may be present before the original tumor is found.

DIAGNOSIS

The diagnosis of a malignant tumor of the testicle may be difficult. It will be made easier if this is the provisional diagnosis in every case of painless swelling of the testicle, particularly if only one testicle is involved and the patient is between 20 and 40 years of age.

In the differential diagnosis the principal conditions to be excluded are hydrocele, hematocele, tuberculosis, and syphilis. Hydrocele can be recognized by transillumination but its presence does not exclude tumor, as both were present in 18 per cent of Higgins and Buckert's cases. Ormond and Prince state that hydrocele is present in 15 to 25 per cent of cases and advise preoperative permission to remove the testicle should a tumor be found at operation for hydrocele.

Hematocele usually follows trauma. It is boggy and the scrotal structures cannot be identified. It may be caused by a tumor.

Tuberculosis of the testicle is usually only a part of urogenital tuberculosis. It usually starts in the epididymis and extends to the vas as small nodules, often with fistulas. The seminal vesicles and prostate may be involved. The diseases may co-exist; Gilbert and Moody report 1 case and found 4 others in the literature.

Syphilis can be excluded by the Wassermann reaction and response to treatment. Malignancy will not respond to antisyphilitic treatment.

The Aschheim-Zondek reaction is of great help in the differential diagnosis, if positive. Quantitative determination of urinary prolan helps to determine the type, degree of malignancy, and radiosensitivity of the tumor. According to Cutler and Buschke, the hormone output in different types of teratomas, within a wide range, due in part at least to the mass of disease, the original tumor, and the number and size of metastases, varies as follows: adult teratoma, 50 to 500 mouse units per liter; embryonal carcinoma, with lymphoid stroma (seminoma), 400 to 10,000 mouse units per liter; embryonal adenocarcinoma, 10,000 to 40,000 mouse units per liter; chorionepithelioma, 50,000 or more mouse units per liter.

It is the consensus of opinion of recent writers that the amount of prolan in the urine should be determined before treatment is begun. If positive, the diagnosis is certain; even the type may be diagnosed fairly accurately. If negative the testicle should be removed for pathological diagnosis without delay. The cord should be exposed at the external ring, clamped and divided with a cautery before the tumor in the scrotum is manipulated to prevent metastasis due to the squeezing out of tumor cells. As Hinman states, "the loss of a testicle which is tuberculous, luetic or the site of some other form of epididymo-orchitis is neglible should the enlargement prove to be one of these rather than tumor." In most of our Texas cities, at least this is my experience, it is difficult or impossible to obtain the quantitative determination so we may have to depend on the qualitative test or pathological report. However I hope, and expect, that with the M. D. Anderson Hospital in operation we may soon be able to obtain this service.

TREATMENT

The treatment consists of orchidectomy, orchidectomy followed by removal of the regional and retroperitoneal lymph nodes, orchidectomy and irradiation, or irradiation alone.

According to Cutler and Buschke, simple orchidectomy is a wholly inadequate procedure in the majority of these tumors. The radical operation has improved the result of surgical treatment. These same writers state that a series of 80 cases in which operations have been done by different American surgeons and collected by Hinman gives a five-year curability rate of 21.2 per cent with 1 operative death, as against a curability rate of 6.6 per cent of 258 cases treated by orchidectomy alone with no operative deaths. The principal disadvantage of the radical operation is the high primary operative mortality, which is given by Higgins and Buchert as 12 to 15 per cent.

Irradiation combined with surgery has greatly improved the survival rate. Higgins and Buchert report a five-year survival rate of 20 per cent and a ten-year survival rate of 12 per cent in 25 cases with no clinical evidence of metastasis treated by orchidectomy alone. Of 31 similar cases treated by orchidectomy and irradiation the survival rates were 35 per cent and 6.5 per cent. In this series the five-year survival rate was increased by irradiation but the ten-year rate was less in the irradiated cases. In these 83 cases all of the patients with clinical evidence of metastasis were dead in five years. Pierson reports a three-year survival rate of 20 per cent in 15 cases treated by surgery only as against 78 per cent in 9 cases treated by orchidectomy and irradiation. Leddy and Desjardins sum up their results as follows: A patient without metastasis has a 60 per cent chance to live five years or longer, one with metastasis has about a 30 per cent chance to live the same period of time.

Seminoma is apparently the most radiosensitive of these tumors. Nash and Leddy review 103 cases of seminoma treated by orchidectomy and orchidectomy and irradiation at the Mayo Clinic. They find a five-year survival rate of 67.7 per cent as compared to a corresponding rate of 29.3 per cent for all other malignant tumors of the testis. They found that 71.1 per cent of those receiving roentgen therapy survived five years while only 58.8 per cent of those who did not receive roentgen therapy survived a similar period.

Nevertheless the radical operation does have a place in radioresistant tumors. Henline determines the original amount of prolan, then exposes the tumor, groin, and lower abdomen to a full skin erythema dose of high voltage therapy. If the hormone output drops sharply he concludes that the tumor is radiosensitive and that the prognosis is good. If the quantity excreted is not greatly affected radiotherapy will be of little avail and radical surgery is justified. Randall and Bothe also believe treatment should begin with irradiation followed by surgery in those cases which do not satisfactorily respond. Hinman is opposed to preoperative irradiation but favors early orchidectomy.

Dean, reporting the results of irradiation at the Memorial Hospital before the divided dose treatment was introduced, reported a five-year survival rate without evidence of recurrence in 29.2 per cent of 97 patients who were classified as inoperable. Ferguson states that more modern technique has raised this percentage to just over 40. This is a higher percentage than usually obtained. Cabot and Berkson report a five-year survival in cases treated by irradiation only of 11.6 per cent of 49 cases, Leddy and Desjardins 13.7 per cent of 51 cases, and Higgins and Buchert had no five-year survivals in 7 cases.

The technique of roentgen therapy varies somewhat with different radiologists. It is beyond the scope of this paper to discuss technique in detail, especially as these cases must be grouped according to extent of the disease and as far as possible according to radiosensitivity.

Since coming to Texas I have had 3 cases of testicular tumor. The first patient had his left testicle removed May 24, 1940, for a painless swelling of nineteen months' duration. Histological examination showed an embryonal carcinoma. He was given 400 *r* to each of four abdominal portals, anteriorly and posteriorly, and to the mediastinum and left clavicular region, within thirty-four days following the operation. He returned August 6, 1940, with a recurring hard nodule of the spermatic cord. This was removed deep in the pelvis, and the fat and gland tissue about the femoral and iliac vessels was removed. The nodule from the cord proved to be embryonal carcinoma. I first saw him two weeks after the second operation and gave an additional 560 *r* to the abdominal ports and 520 *r* to the lower mediastinal and left clavicular ports within eighteen days. All treatment was at 200 kilovolts, 50 cm. distance, 0.5 or 1 mm. copper filter. He is still living with no evidence of metastasis.

The other two patients had lung metastasis when the diagnosis was made. The diagnosis was made in 1 case about 3 months after the patient first noticed symptoms. The last patient came to me for a stomach examination because of pain in the epigastinum, and lung metastasis was seen in routine fluoroscopy of the chest. Examination showed a tumor of the left testicle which was about 30 per cent larger than normal. The testicle had never bothered him. The second patient had considerable pain in the testicle, which was thought inflammatory, but which proved to be an embryonal carcinoma on removal. X-ray study of the chest after removal showed lung metastasis. In both of these cases the metastatic lesions in areas not being treated progressed more rapidly than they could be controlled with treatment the patient could stand, and irradiation had to be abandoned in each case. The second patient died about seven months and the third ten and one-half months after the tumor was first noticed.

CONCLUSION

Malignancy of the testicle will be seen in about 1 of every 100 cases of malignancy found in general practice. Though many cases may be cured by operation or operation and irradiation, it tends to metastasize early. As the primary tumor is usually painless, medical advice will often not be sought until mestastasis has occurred. It is thus imperative that malignancy be considered in every swelling of the testicle, and it should be the provisional diagnosis if the lesion is painless.

The Aschheim-Zondek qualitative test for prolan will be diagnostic in many cases and should be used in every case of suspected tumor. Quantitative prolan determinations are of value in both the diagnosis and prognosis of the case as well as a guide to treatment.

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ABSTRACT OF DISCUSSION

Dr. L. A. Meyers, Houston: This group of tumors of the testicle are rather variable in their manifestations, some being the most radiosensitive of tumors and others being moderately radioresistant. However, all of the malignant group are sufficiently radiosensitive to lend themselves to complete control of the local lesion by preoperative radiation, to be followed in forty-eight hours by surgical removal; and to very favorable control of the metastatic glands along the course of the ureters up to the kidney pelvic areas. At times it is necessary to give therapy along the course of the thoracic duct of the mediastinum. For the metastatic gland areas, it has been our practice to give not less than 1,800 *r* depth dose which is sufficient for less radiosensitive tumors in this group. The tumors that show dissemination through the blood stream offer very little other than temporary relief. Some of these tumors are so very cellular that the cell mass, whether in the gland or in the primary tumor, show areas of necrosis; this is a very favorable phenomenon, particularly in respect to response to radiation.

POLIOMYELITIS IN THE ARMY

Despite the huge concentration of men brought together from all parts of the country in Army posts and the combat conditions under which great numbers are living, there is apparently no more danger in the Army from infantile paralysis than there is in civilian life.

The Office of the Surgeon General reports that the number of cases was 3.4 per 100,000 troops in this country in 1943 and 4.0 in 1944. The case fatality rate was 12.1 per cent in 1943. This is similar to the civilian rate for similar ages, and there is a further similarity in the time of year the cases occurred and their geographical location.

There has not been an epidemic of infantile paralysis at any Army post during this war.—S. G. O. Notes, February 28, 1945.

TREATMENT OF OCULAR INJURIES AMONG COMBAT TROUPS

MAJOR FAY M. WHITSELL, M. C., A. U. S.
Chief, Eye Section, Ashburn General Hospital
McKINNEY, TEXAS

It has not been my fortune to observe first hand fresh battle wounds of the eye. Most men of our Medical Corps, who have had this experience, are either still active on the battle front or have not had time as yet to correlate their findings. Much literature, however, has been accumulated by others of allied and enemy forces, in which we can find instructive material.

The tempo of this conflict has greatly increased over that of those in the past. Trench warfare has given way to fluid fronts, high mobility of ground forces, and the new problems of air warfare, both for military and civilian personnel, pose new complications, the solution of which must be met by actual experience in the field. The higher power of explosives causing glass, wood, stone and other debris to be hurled with great force, their greater fragmentation, and the fact that shell casings are made largely of non-magnetic material, together with the increased fire power, has greatly increased the number and seriousness of wounds, not only to the eye, but to the whole body. Such new types of battle machines as, for instance, the tank, or landing craft, with their slots for observation which expose the eyes only, and the plastic noses of bombers, and so forth, have increased the likelihood of injuries to the eyes and face while sparing the rest of the body.

Wounds of the eye comprised only 1.18 per cent of all wounds in the Franco-German War, and 2.2 per cent in the Russo-Japanese War. They accounted for from 5 per cent to 8 per cent in the first World War, and in the present conflict this latter figure is being considerably exceeded. In an analysis of 347 wounds, by Stallard, 11 per cent were from bullets; these were the most destructive of all, 56 per cent from shell explosion, having either shell fragments or debris blown into the eye by the blast; and 21 per cent from land mines, in more than half of which both eyes were involved. The increased use of machines has directly multiplied the amount of high octane gasoline employed, so that burns are common about the hands and face. The inevitable eye complications of facial burns therefore must be considered. Gas warfare thus far, has been held in leash, as we all feverently hope it will continue to be. However, the types of gas, their effects

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on tissue, counter measures, and so forth, will be referred to.

The bulk of my material has come from *The Bulletin of War Medicine*, and a review of papers on allied subjects written by Dr. Thornwall Davis, and Lt. Col. John Matthews of Randolph Field. Invaluable information was obtained from personal communication with Lt. Col. Ray L. Allison, Chief of EENT, Letterman General Hospital, and Major Saul Sugar of Barnes General Hospital, Vancouver, Washington.

In the main, it can be said that the handling of ocular injuries in war is the same as that of civil life, conditions of battle often modifying what would be a commonly accepted procedure, such as the frequent inevitable delay between the time of injury and definitive treatment. The tendency to minimize ocular injuries when there is accompanying wounds of chest, abdomen, or extremities has been brought to the attention of the authorities by the receiving ophthalmologist. To combat the foregoing and to discourage the well intended, but inexpert care of wounds, the following rules have been laid down for the field treatment of most ocular injuries, especially where perforation is suspected. These latter cases, it is well to point out, are segregated and evacuated, if possible, by air to a hospital where ophthalmic treatment can be given. This has been emphasized by the German writers because of their experience in the Polish campaign.

1. Anesthetize the eye with 1 per cent butyn sulphate solution or 0.5 per cent pontocaine hydrochloride solution.
2. Gently remove any superficial foreign bodies with a cotton wound applicator moistened with boric acid solution.
3. Flush the eye with boric acid solution.
4. Close the eyelids and apply fairly firm dressing held in place by adhesive tape.
5. Evacuate the patient as rapidly as possible, so that he may receive proper ophthalmologic care promptly.
6. Do not close the wound with sutures.
7. Do not excise any tissue protruding from the wounds.
8. Do not cover the eye with a conjunctival flap unless specifically equipped to do so.

Some of these points need amplification and discussion, as for instance, No. 8 which states emphatically that no conjunctival flap is to be made unless under proper circumstances. It is interesting to note that Dr. Hugo L. Blair, Rochester, Minnesota, states that in his opinion there has been a great over-usage of the conjunctival flap for penetrating lacerations of the cornea; although once a staunch user of it, he recently has begun to consider it an unnecessary evil and has abandoned its use. He states that:

"In its preparation additional trauma to and reaction of the eye is caused. It likewise prevents satisfactory observation of the site of the wound, and may conceal the development of hypopyon, iridocyclitis, or other intra-ocular complications of the injury. Along the margins of the flap on the cornea, mucus and debris usually collect to the detriment of the healing processes. With large lacerations of the cornea, the tension exerted by the flap may cause inversion and improper apposition of the edges of the wound. With ragged or infected corneal wounds, adhesions of the flap to the corneal wound frequently occur, causing dense leukomas and much corneal irregularity. The larger corneal lacerations should be closed with corneal sutures approximately one-fourth inch apart. This does not make such a tight closure that aqueous cannot seep out a bit between the edges of the wound in good apposition for proper healing. Usually with corneal wounds, of about ⅜" length or less, sutures are not necessary."

Dr. Thornwall Davis believes that small conjunctival flaps are better than large ones, especially if firmly sutured to the episclera, and that they are superior to corneal suture. The contention of Blair that the preparation of the flap causes undue trauma is a little hard to understand when he says he prefers corneal suturing with sutures one-fourth inch apart. I have had rather large experience with flaps, both after perforating injury, and to cover prolapse following cataract extraction, and if they are carefully done, they cause minimal disturbance. On the other hand, it is difficult to insert a suture in the cornea, at least one that will hold, and the problem of proper fixation in order to place the needle would seem to me to be provocative of more pressure and trauma than would be necessary in the preparation of a conjunctival flap. I will agree that sutures placed one-fourth inch apart should allow for ample seepage of aqueous. I have never seen any serious complications, such as he mentions, from a total conjunctival flap, and since sulfa crystals can be dusted into the flap before is is closed as was done at Pearl Harbor by Walker, there is less likelihood if infection should present itself.

In a personal communication, Col. Ray L. Allison states that "perforating wounds of the sclera, if they are not too sereve, are closed with catgut sutures. Perforating wounds of the cornea, which in our opinion will not heal with atropine and ordinary pressure bandage, are closed with a conjunctival flap—the more severe wounds with a purse string flap covering the whole cornea."

Injuries to the choroid and retina from blast need no great elaboration. They are characterized by the usual tears in the choroid, intra-ocular hemorrhage, either in vitreous or anterior chamber, dislocation of the lens, and an occasional rarity such as the case reported in England in which the eyeball was completely drawn out of the orbit. Davis warns that posterior hemorrhages are sinis-

ter, stating that efforts should be made at once to favor absorption, and delay coagulation, thus preventing the formation of solid masses in the vitreous which resist absorption. A solid clot may cause false light projection though there is no lesion of the retina or choroid. This may cause us to enucleate an eye which might have the possibilities of restoration of vision. The newer drugs which prevent clotting, such as dicumerin and heparin should be given a trial. The patient, according to Duthie, should not be kept in bed, but should be up and about. After a considerable period, if absorption of the clot has not taken place, scleral puncture may be considered.

Hemorrhage into the anterior chamber is a complication that is occasionally neglected in that there is a failure to remove early enough, a clot that may form. Many such eyes have been lost owing to hematogenous infiltration of the cornea and secondary glaucoma. It is a pretty good rule that if within a day after the injury, clear aqueous cannot be seen above the blood in the anterior chamber, it is wise to open, wash out the blood and remove the clot. It is probably inadvisable immediately after the contusion, because of the likelihood that the source of the bleeding has not become well closed, and that further hemorrhage may follow sudden lowering of intra-ocular pressure. Blair believes that the immediate treatment of such contusions should be the putting of the patient to bed at absolute rest with both eyes bandaged. He prefers to use neither atropine nor myotics and to rely on the complete bandaging of both eyes to keep the injured eye externally and internally at rest.

Whether or not we agree with this, and I must say it is an open question, it is interesting to note in a recent article by Francis H. Adler and associates of the University of Pennsylvania, Department of Ophthalmology, on "Physiology of Aqueous in Completely Iridectomized Eyes," they conclude that when there has been a hemorrhage into the anterior chamber such as a result of trauma, it is probably better not to dilate the pupil, since the absorption of blood seems to depend on the presence of iris stroma, and the undilated pupil leaves more iris surface into which the blood can be resorbed.

As to foreign bodies, I believe the most important single thing that could be said is a reaffirmation of Major Sugar's admonition to be conservative and, as he puts it emphatically, "no emergency surgery." This paper is in no way meant to be controversial, but it is difficult to refrain from comparing opinions of men on any one particular subject, and to look at all sides of the question. Gulliver, of New York City, in article published in the *Archives of Ophthalmology*, 1942, titled "Particles of Steel in the Globe of the Eye," states that out of 1,800 intra-ocular foreign bodies only 10 were not steel. This is another illustration of the difference between civilian and military ophthalmology. He speaks authoritatively and says that "his series represents by far the largest number of intra-ocular foreign bodies treated by one person in this or in any other country." He records by far the most optimistic picture of intra-ocular foreign bodies, concluding from his series that, "excluding cases of irreparable damage by the initial injury, whether by injury to lens or to other parts, and cases in which the particle could not be removed (and this in 1 per cent of cases only), one finds that in 80 to 90 per cent of the cases, normal or only slightly less than normal vision was retained after the removal." It would be interesting to know what he considers "slightly less than normal," and a survey of vision before and after would lend great emphasis to his conclusion, "that particles should always be removed through the anterior chamber." He makes the single exception of a large posterior segment wound through which the foreign body can be taken directly by means of the magnet's application.

Davis states the following:

> "My personal experience with foreign bodies in the globe has not been a happy one. Most of the eyes are eventually lost from detached retina, secondary glaucoma, chronic uveitis, complicated cataract, and other distressing sequelae, not to mention the possibility of sympathetic ophthalmia. Many of these complications occur very late, several or more years after the injury. Removal of the foreign body may be accomplished, but even though accomplished, the end results are often disastrous; except for iron and copper, it may be best to let them remain."

A similar opinion is expressed by Major Sugar. He states, as I have pointed out, that most foreign bodies in his experience have been non-magnetic in character. This is because so much aluminum-magnesium alloys have been used instead of steel. Foreign bodies of the aluminum-magnesium variety become crusted with a white, crumbly powder after several days contact with the ocular fluids and produce little siderosis. Savin noted that if intra-ocular, these bodies may be so small as to be seen only with the slit-lamp, and if numerous, they suggest synchysis scintillans ophthalmoscopically. It seems paradoxical that aluminum which produces abscess formation when imbedded in the skin is tolerated in the eye. It may be that its combination with magnesium reduces its irritability. Mielke found that aluminum placed in the eyes of rabbits and observed

ophthalmoscopically was well tolerated for two years.

Colonel Allison gives the following outline of the handling of ocular foreign bodies at Letterman General Hospital:

"Multiple foreign bodies in the cornea are treated conservatively. These foreign bodies will frequently work themselves to the surface and be extruded spontaneously. Treatment for non-magnetic intraocular foreign bodies depends upon the position. If they are in the anterior chamber or in the lens, they are removed. If they are in the posterior chamber and are not too large and there is not marked eye reaction, there is more and more tendency to see how well the eye will tolerate them. We, of course, treat these men with sulfadiazine and typhoid vaccine to prevent the possibility of sympathetic ophthalmia in the other eye. This judgment, of course, depends on the vision in each eye and condition of each eye."

In an excerpt from a personal communication of Dr. Meyer Wiener, honorary consultant in ophthalmology to the Navy, to Dr. Davis, he says:

"I think one of the striking features about foreign body injuries in this war is the fact that we have not had a single one that was magnetic. Even when they were removed, and looked like iron or steel, they failed to be attracted by the magnet. An analysis of quite a few proved them to contain a large amount of copper. Then we have had a number that looked like aluminum and proved to be such when we had an opportunity to test them. We make no effort to remove aluminum as it has proved to be harmless, thus far. We had one officer who had multiple fragments of aluminum all over his body, including some in the knee joint, which had to be removed. These were sustained while in action on a destroyer on August 7 during the first battle for the Solomons. One penetrated the left eye. You could see the tract through the cornea, hole in the iris, tract through the lens capsule and the foreign body in the lens, just above dead center. We left it in. He has had no irritation whatsoever and his vision in that eye today is 20/20—1."

As to the technique of removal, just a word about the posterior approach, the anterior way deserving no special mention here. The conjunctiva is incised concentrically a little distance anteriorly or posteriorly to the suspected spot and retracted. Micropunctures to previous retinal detachment are essential. Sugar's method is to place mattress sutures parallel to the incision on each side of it, by means of which quick closure is obtained, thereby preventing undue loss of vitreous, or prolapse of uvea. They can also be used as retractors to open the lips of the wounds facilitating the introduction of the magnet's tip. This closure is especially important if, as is usually the case, the foreign body is non-magnetic and some manipulation is necessary. Sugar feels that when the choroid is exposed, if no foreign body can be felt, further procedure will only jeopardize the eye, and he closes without more search. Some prefer sutures placed in the cut edge of the sclera after the incision is carried through one-half its thickness, not unlike the McLean method of sclerocorneal suturing in cataract. It allows for firmer tying, more direct edge to edge apposition, and a lessened likelihood of overlapping. Fine cotton or linen is probably preferable to silk or catgut as suture material. The posterior approach to a vitreous foreign body whether magnetic or non-magnetic is preferred by the author, especially if the lens is intact. I think if the lens is already opaque or injured so that it will eventually become so, the anterior route may be considered in combination with lens extraction. The anterior chamber foreign bodies can wait until linear extraction is done, and if lucky, the foreign body will either come out with the lens or be flushed out with the anterior chamber lavage.

It is apparent that *exact localization* of the foreign body will be necessary especially if it is non-magnetic, as the incision will have to be made precisely over it, if it is to be removed without probing and manipulation which must be avoided. Sweet's method of localization is probably the best known in the United States, and also very satisfactory. There are other means, however, which require no such outlay of instruments, and which have been put to use where time is an important factor. Some of these can be briefly mentioned.

The Comberg method which requires two exposures affords the most modern method of localization without cumbersome apparatus. The patient wears the Zeiss contact glass with four lead marks, and with the first exposure fixes a point in a small mirror which is transparent to the roentgen rays. In the lateral, the axis of the eye and the meridian plane of the head are parallel to the plate holder, and the central ray passes through the limbus perpendicularly to the axis of the eye. From the first plate the meridianal localization of the foreign body, as well as its distance from the axis of the eye, may be determined. The antero-posterior localization is ascertained from the second plate by measuring the distance from the foreign body to the lead points on the contact glass, situated at the anterior border of the limbus of the cornea. Pfeiffer's modification of the Comberg method employs the same contact glass but is simplified by the absence of the mirror, and two films are taken, a lateral and posterior-anterior, with the eye as close to the plate as possible. Calculation is made by comparing the angle made by the foreign body, and the four opaque spots in the contact lens with a chart of comparable size. Slit lamp corneal microscope and the ophthalmoscope are also im-

portant adjuncts in a decision as to where a foreign body may be.

The problem of enucleation or evisceration always comes up in a discussion of war wounds of the eye. For obviously severely injured eyes with deep laceration where there is loss of form of the globe or no light perception, enucleation should be done. The time factor here must be considered, as many are accompanied by other head wounds in which the patient is in shock for which he needs supportive therapy. It is generally believed that enucleation should be postponed for at least ten days to two weeks until the reaction subsides. There is the chance that an occasional eye may be saved if time has elapsed and a critical examination made under more favorable conditions. I believe the choice between enucleation and evisceration should depend on the possibility of a better cosmetic result in which an implant following enucleation could be done. If there is infection and an intra-cranial spread of the process is feared, evisceration is the operation of choice. All uvea is to be carefully searched for and removed, as with some injuries the disorganization is so great that tissue may be spread about in the orbital contents. Whether or not a piece left in such a place would be a factor in the late causation of sympathetic ophthalmia is a point to be considered.

Now that *sympathetic ophthalmia* has been mentioned it can be dismissed quickly by saying that it has probably been exaggerated, for the wide-spread practice of removing dangerous eyes early has rendered it comparatively rare. I believe we will all agree that there is a safe period of ten to fifteen days in which a watchful and conservative attitude may be taken. At the end of this time, a decision must be made and, if there is a real question, the error should be made on the side of removal. Not much can be said about the choice of material to use as an implant, as the one most desired by the operator may be impossible to obtain. I prefer vitallium, but recent experience with glass has been entirely satisfactory. In a recent conversation with Dr. Alvis of St. Louis, he stated that he preferred glass, having used it for many years, and occasionally having to remove one a long time after its insertion, has found no change in its surface. The experience we have all had in observing pitting and erosion of a prosthesis, does not hold for the glass snugly inserted into Tenon's capsule, as it is not exposed to the tears and friction of dust particles.

I should like to quote here a notation from Colonel Allison, which is to the point:

"Briefly, enucleation is done wherever the eye is hopelessly injured or when we suspect there is a possibility of sympathetic ophthalmia, and that whereever possible within two or three weeks of the injury. Naturally, the amount of vision and the condition of the eye enter into this decision. Wherever possible, we use an implant. We have had considerable experience supplying prostheses here, and I am convinced that those with implants give better cosmetic results.

"There has been very little sympathetic ophthalmia here, and I believe this is due to early enucleation overseas. We have seen one case in three and one-half years. Following perforating injury, the man was admitted here three weeks after his injury. The next day, the irritated eye was removed. The other eye was normal at that time and remained so for seven days. On the seventh day he complained of a mild irritation of this eye. It was examined and found to have a few cells in the anterior chamber. Energetic treatment aimed at sympathetic ophthalmia was instituted. During this time a report from the Pathological Department showed the enucleated eye to be affected by sympathetic ophthalmitis. We kept the man here for about three months, the last six weeks of which his eye was quiet and at the time of his transfer, vision was 20/30. There was no evidence of activity at that time. It is believed that the fact that his eye was enucleated seven days before the onset of the inflammation of his other eye was effective in procuring this good result."

Plastic procedures are properly postponed until all swelling has receded, infection has been cleared, and the tissues have resumed as near a normal picture as possible. If care is taken originally to see that the canthal angles are carefully aligned, and the cut edges of the lids approximated nicely, later plastic procedures are greatly simplified. Special attention should be paid to the canaliculi, as a carefully placed stitch may help approximate a torn duct, and preserve a normal passage for the lacrimal fluid. Colonel Allison believes that as much of the tissues of the lids should be saved as possible in war injuries. Lacerations through the lower canaliculus have best been treated with the insertion of a Bowman probe into the sac—the angle of the probe being bent through the wound after insertion through the canaliculus into the sac and nasal lacrimal duct. This prevents pressure necrosis. It is again emphasized that no debridement should be done, as no one realizes quite so well as the eye surgeon how important a small amount of conjunctiva can be. It is proper to suture torn lids so that the eyeball will be covered in transit, but none of the tarsis or conjunctiva should be sacrificed until the patient is seen in the base hospital. Various hospitals have been designated as plastic surgical centers, and in a hospital such as ours, only a few such cases have been seen. An interesting personal communication from Dr. Meyer Wiener to Dr. T. Davis is quoted:

"There have been a number of lid injuries which have required plastic repair. Thus far, we have

not had to reconstruct any by pedicle grafts. . . . I think it should be stressed that the all important thing is to give adequate proper immediate care, which would obviate the necessity of doing many plastic repairs. We had one recently which demonstrated that. We worked on it for over two hours but finally did get a most satisfactory permanent result. Of course, one cannot always do this under actual battle conditions; but it is my belief that if time or conveniences will not permit, one should clean up things as best he can, do no debridement, and let the fragments fall as they will. They can then be separated later and readjusted. This is naturally only second best. Allison presents a method which seems to me to greatly simplify reconstruction of the orbit. It deserves a trial. He states that 'cicatricial deformities of the socket are treated by multiple linear incisions of the conjunctiva until it is determined that the socket is large enough to hold a prosthesis. Then it is packed with vaseline gauze. This pack is changed on the fourth day. On the eighth day, a plastic prosthesis which has been covered with cod liver oil is inserted into the socket. This method has worked well and prevents the necessity for grafts. The epitheliazation is satisfactory. We secured a supply of stock eyes from a local glass eye fitter and had our dentist make up plastic molds from these eyes and give us duplicates in plastic material. We use these to prevent shrinking of the socket following enucleation and plastic procedures'."

As to thermal burns, it can be said that there is an unfortunately large number, as is illustrated by the fact that 60 per cent of all casualties at Pearl Harbor were of this nature. As stated before, this incidence is due to the large supply of oil on tankers, employment of high octane gasoline in airplanes, tanks and other ground vehicles, as well as the unprecedented use of the incendiary bomb and flame thrower. All degrees of lid, conjunctiva, and corneal burns are seen. Treatment is usually initiated under unfavorable conditions, as first aid posts are overtaxed during a severe air raid or major military action, and the prompt evacuation for definite treatment is frequently impossible. Immediate therapy will frequently be directed to prevention and treatment of shock by the administration of fluids and morphine, and the maintenance of warmth. Burns of the face may be covered with clean towels, or one of the following medicaments may be applied: cod liver oil, 5 per cent sulfadiazine in water-soluble emulsion, boric acid ointment, or gauze impregnated with sterile petrolatum. These preparations have the advantage of not altering the appearance of the burn. For relief of pain the usual anesthetic may be instilled, *e. g.*, 2 per cent butyn sulfate ophthalmic ointment, pontocaine, or 1 per cent cocaine in castor oil. It is not necessary to point out that the use of atropine, mucous membrane grafts, if indicated, and the prevention of adhesions by daily glass rod massage are all adjuncts in the late treatment. A new departure, and possibly a valuable one, in the treatment of ocular burns is the employment of compounds containing the sulfhydryl radical (SH), for example, in the proprietary preparation hydrosulphosol, which is said to contain "sulfhydryl (linkage) and pentothione (ion) in compounds of polysulfides and thiosulfates in aqueous solution." However, nearly all writers are in agreement on one point. Before the application of any medicament the lids should be carefully prepared. Adherent oil, which was a problem in many naval casualties at Pearl Harbor, should be carefully removed with soap and water. Blebs should be opened and necrotic material excised (with due regard to the preservation of viable lid-tissue), after which the lids should be copiously rinsed with sterile physiologic solution of sodium chloride or boric acid solution.

Coagulants, notably gentian violet, either alone or in combination with other drugs, are still recommended. Wakeley has recommended use of gentian violet jelly with merthiolate aboard British vessels, it being immediately available and easily applied under conditions of combat. Campbell recommended the use of gentian violet and silver nitrate for deep burns of the lids and suggested that contraction may be lessened by suturing the margins of the lids. When the eschar is loosened by the tears, petrolatum is applied. Likewise, Stallard has encountered minimal contraction after the application of 1 per cent gentian violet followed in five minutes with 10 per cent silver nitrate alone, and silver nitrate in combination with tannic acid and gentian violet have been successfully used. It cannot be reëmphasized too often as Allen and Koch have pointed out, "The greatest menace to the patient is infection that comes from the open mouth and uncovered nose of excited and voluble bystanders, of enthusiastic first aid workers, too often of the doctor and nurse who are caring for the patient without masking themselves and without making certain that their hands and their surgical instruments are free from pathogenic bacteria."

Burns from caustic agents require care that cannot be had in combat and probably for sometime after. It is useless to think of special solutions; if one has water from his canteen he is fortunate. The crudest possible arrangements may be contemplated and met with where the good sense of the surgeon and the skill in his hands will be about all he has to work with. Copious irrigation to remove excess alkali or acid, should fluid be available, is desirable. We are familiar with sodium sulphate solution (0.4 per cent) for use in tear gas burns.

In *mustard gas* burns, copious irrigation should be carried out as promptly as pos-

sible. If available, 1.5 per cent solution of sodium bicarbonate, saline or boric acid solution should be used. However, since the reaction to mustard is so rapid and intense, Livingston and Walker concluded that local treatment is ineffective in the early stages. Both the United States War Department and Great Britain's Ministry of Health now recommend that irrigation, preferably with 2 per cent sodium bicarbonate solution (or physiologic saline solution in Britain) be used only after contamination with the liquid agent and then only if irrigation is possible within the first five minutes after exposure; thereafter, irrigation is useless and may be harmful. Irrigation with water from the soldier's canteen is recommended in the field. Five per cent sulfathiazole ointment is advocated in severe burns.

The treatment for lesions due to *lewisite* is essentially the same as that for lesions due to mustard gas. The Office of Civilian Defense has recently withdrawn its previously issued recommendation that 0.5 per cent hydrogen peroxide be used as a decontaminant of the eyes after exposure to lewisite. Spencer condemned the use of any neutralizing solution containing chlorine. Allison has this to say:

"The subject of chemical gas burns boils down to the use of 2 per cent sodium bicarbonate solution for lavage and local treatment with pontocaine and other non-injurious local anesthetics to allay the fear of blindness. Men who have had previous experience state that those who have been exposed to mustard gas can disrupt the morale of a collecting station by their fear of blindness. Assurance and local anesthetics following lavage are methods of treatment according to the consensus of opinion. According to instruction from the War Department, they recommend the use of Bal. 1 (M-1). Eye ointment for treatment of mustard gas."

In chemical burns, keeping the lids apart to prevent symblepharon is of course important. I find the use of as mild ointments as possible preferable, boric acid usually, or, if infected, White's Ointment. Medicated ointments result in irritation. Mercurial ointments and sulfathiazole ointments are irritating.

A final word about the use of the sulfa compounds. In general, it may be said that their use is fairly well standardized as far as early administration is concerned. The first aid kit that each man carries contains 2 Gm. of sulfanilamide, half of which is taken immediately following the injury, if a man is able to swallow. It has been pointed out by some observers that on the theory, if a little does good, more would do better, some of the boys take all their tablets at one time, and an occasional reaction is noted. Whether or not the sulfa treatment should be continued later, depends on the problem presenting. Conservative notes are sounded by Heath and Bellows, the former believing that "established effective methods of therapy should not be discarded for something new." He warns against the indiscriminate use of sulfonamides because of their little known effect on the hemapoietic system, and the likelihood of establishing early sensitivity with the drug, thus preventing adequate dosage later at a more critical time. The keeping of urinary output up to 1,500 cc. daily, and checks of blood level on alternate days are suggested. I believe a shortened course of the drug with adequate dosage to bring the blood level up, and maintain it there, is better than a more prolonged time of administration with moderate dosage, and that by this means, fewer serious complications will be encountered. General chemotherapy is necessary for severe ocular lacerations and penetrating wounds of the globe, especially if infection is suspected. Bellows points out that topical application of sulfonamide compounds to the eye is governed by certain local conditions. Sulfonamides are bacteriostatic; therefore, in the avascular cornea, the drug will be less effective than in a vascularized tissue which contains a full complement of leukocytes. Detritus, secretion and certain local anesthetics decrease the local effectiveness of sulfonamides. The drugs must be used with caution in traumatic lesions of the cornea, because in the absence of normal epithelium they cause a severe injury as shown not only by delaying the healing of the corneal epithelium, but also by promoting the formation of scar tissue. Therefore, in corneal abrasions and injuries the local use of sulfonamide compound should be limited to cases in which dangers of infection outweigh the cosmetic and visual factors.

One of the newer sulfonamide compounds, sodium sulfacetimide (the sodium salt of N-acetylsulfanilamide; *albucid soluble*), has recently been advocated for the prevention of secondary infections. The United States Army uses a 3 per cent solution of the drug, instilled every two hours for two days, thereafter four times daily. Britain's Ministry of Health recommended a 2.5 per cent solution, instilled four times daily, for prophylaxis. The United States Army recommended the use of a 6 to 9 per cent solution in cases of developed infection. Since a solution of this salt has a *p*H of 9.0 to 9.4, it may be titrated with hydrochloric acid to make it non-irritating.

Two more reports indicating the value of penicillin appear in *The Journal of the American Medical Association* for March 10. In one, the drug was found effective in treating infantile congenital syphilis and in the second, an infection of the pericardium was cured with penicillin after sulfadiazine had failed.

CAROTID CAVERNOUS ARTERIOVENOUS ANEURYSM

CHARLES E. BALL, M. D.
FORT WORTH, TEXAS

Carotid cavernous arteriovenous aneurysm is of interest to the ophthalmologist on account of its chief manifestation, pulsating exophthalmos. The condition was first described by Travers in 1809. He effected a partial cure by ligating the carotid artery in the neck, but did not recognize the true pathologic condition present. It was not until 1835 that Baron described a case of exophthalmos due to an intracranial arteriovenous communication.

At the 1939 meeting of the American Academy of Ophthalmology and Otolaryngology, Sugar and Meyer presented a very complete review of the literature since 1809. It is notable that although over 800 cases have been reported the condition is sufficiently rare that few writers have reported more than one or two cases. Although no corrective measures have been undertaken in the case reported here, it is worthy of record on account of its striking symptomatology and the rarity of such cases. It will be noted, also, that some features of this case differ from the usual which have made it a most interesting study.

A brief review of the salient features of this distressing vascular accident may be of value before presenting a report of the case. Pulsating exophthalmos is the classic sign in carotid arteriovenous aneurysm but the two are not synonymous since at least 15 per cent of cases of pulsating exophthalmos are not caused by such arteriovenous communication or to an aneurysm of the internal carotid artery within the cavernous sinus. The incidence of carotid cavernous fistula is one case in about 20,000 clinical patients. Approximately 80 per cent of such cases are traumatic, the remainder being of spontaneous origin. It is not difficult to visualize possible pathological variations in the carotid artery and cavernous sinus when we consider the anatomical peculiarity of an artery within a vein. The cavernous sinus is protected on its medial wall, and the superior and inferior petrosal veins have thick dural coverings, as have communications to the other side. On the other hand the ophthalmic veins are the only tributaries which have thin walls and lie in loose areolar tissue. When the fistula occurs, arterial blood is forced through the opening into the surrounding veins. Soon the veins of the orbit become engorged, resulting in proptosis and the characteristic bruit, the constant noise of which causes the patient to complain more than any other symptom.

Postmortem examinations have revealed variations too numerous to mention. It is conceivable that in a basal skull fracture through the middle fossa an injury may be transmitted to the carotid arterial wall resulting in a tear or weakening of the wall and consequent fistula. The fact that symptoms frequently appear several weeks following the injury leads to the belief that the communication does not occur immediately. There are definite indications that an aneurysm of the artery within the sinus was present prior to the injury producing the communication. Spontaneous arteriovenous aneurysm is also explained by the presence of such weakened arterial walls with no history of trauma.

There is usually the history of a severe blow on the head followed by a period of unconsciousness and later a swishing noise in the head, gradual failure of vision and exophthalmos. Temporal and eye pain may be severe or entirely absent. Vertigo may add to the patient's discomfort. All symptoms are aggravated by exertion or stooping. The clinical picture is that of proptosis of varying degree, usually unilateral, with loss of motility of the eyeball. The superficial veins are markedly enlarged, and frequently there is edema of the lids and chemosis of the conjunctiva. Palpation of the upper lid reveals a thrill and the characteristic bruit is heard when the stethoscope is placed on the upper lid, brow or temporal region. The cornea may become cloudy from exposure and retinal hemorrhages may produce clouding of the vitreous. The retinal vessels are usually engorged and tortuous, and frequently optic atrophy is present. Increased intra-ocular tension is not unusual. The first eight cranial nerves may become involved, notably the optic and abducens. The optic nerve is injured by pressure and stretching due to the proptosis. The abducens is more vulnerable as it passes through the cavernous sinus and may be injured either by the original trauma or later by pressure.

Treatment seeks to stop the short-circuit of arterial blood into the cavernous sinus and is beset by a number of mechanical difficulties. It has been accomplished by (1) ligating the carotid artery, wholly or partially, (2) obstruction or ligation of the afferent veins, (3) promoting clot formation at the site of the communication with sclerosing solutions, (4) plugging the fistula with a piece of muscle introduced into the carotid artery or (5) by a combination of the above. Walter E. Dandy has done much toward re-

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lieving these unfortunate individuals with his operation in which he places a silver slip upon the intracranial portion of the internal carotid artery just before it divides. This prevents the disastrous results which frequently attend ligation of the internal or common carotid in the neck.

REPORT OF CASE

W. H., a male, age 33, sustained a head injury on Feb. 19, 1940, when the truck he was driving was struck by a train. He remained unconscious for nine days. A few days later he noticed a swishing sound in his right ear, which kept him awake at night. He stated that the noise had persisted until the present time but that he had become accustomed to it. Exertion or stooping increases its intensity. A few weeks after the accident he first noticed diplopia when he looked to either side, up or down but none when looking straight ahead. About thirty days after the accident the right eye began to protrude and the eye appeared to be inflamed.

When examined on April 29, 1940, he complained of double vision, some visual impairment in the right eye and the above noise. Visual acuity was 20/24 in the right, and 20/20 in the left eye. The media of the right eye were clear and the optic disc and retina had a normal appearance. The right eye was 5 mm. lower than the left, apparently the result of previous fractures of the facial bones. He had a right hypophoria of four degrees, and had no diplopia except when the limit of excursion of the right eye was reached. The excursion of the movements of the right eye was limited by proptosis of about 2 mm. The conjunctival vessels were engorged, but little dilation of the superficial veins of the brow was noted. There was marked pulsation of the right eye when palpated through the lid and a loud aneurysmal bruit was heard when the stethoscope was placed at the inner canthus of the eye.

The patient was advised of his condition and he decided against corrective measures. On June 18, 1940, vision of the right eye was 20/32; on Sept. 9, 1940, 5/200; on Oct. 18, 1940, perception of light only, which he lost a short time later. The superficial veins of the brow soon became markedly dilated and the degree of proptosis increased. He was examined on March 20, 1942, and again a year later. During this period he developed more immobility of the eye, visible pulsation of the globe and greater dilation of the superficial veins. Anterior displacement of the eye had increased to 5 mm.

When examined March 4, 1944, the exophthalmos had increased to 8 mm. The pupils were of equal size, the right reacting slowly to light. Intraocular tension was right eye, 13 mm. Hg.; left eye, 18 mm. Hg. Vision in the right eye was no light perception, and in the left eye 20/20. Roentgenograms showed a marked enlargement and erosion of the margins of the superior orbital fissure, indicating marked engorgement of the ophthalmic veins.

This case presents an unusual picture in the appearance of the retinal vessels and optic disc of the right eye. These vessels are not tortuous or dilated as are the superficial vessels, and the disc has an almost normal color. Pressure within the orbit may be obstructing both the arterial and venous flow, thus preventing the usual appearance of the retinal vessels. Intra-ocular tension of 13 mm. Hg. in the righ eye is unusual since high tension is frequently encountered. For some time this man has worked from twelve to sixteen hours daily, seven days each week, operating a shop doing heavy welding. He has ceased to be disturbed by the noise and is not interested in any corrective procedure.

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Medical Arts Building.

ABSTRACT OF DISCUSSION

Dr. Speight Jenkins, Dallas: In discussing Dr. Ball's interesting paper on this unusual subject, I feel rather inadequate since my experience is limited to 3 cases. After checking the literature I found a very few cases reported; in fact, less than 800.

Eighteen years ago when I was an intern in New York City I was privileged to see 2 cases; one occurred on my service at Metropolitan Hospital and the second on Dr. Ben Witt Keys' service at New York Eye and Ear Infirmary. Neither of these cases was under my personal supervision and neither was surgically treated.

Later when I had been practicing in Dallas about four years a colleague called me to his hospital in a small town in Texas to see a young man who had suffered a severe injury from a fall from an oil derrick. The patient was recuperating after being in shock for several days; he had sustained several fractured bones and a severe concussion. Suddenly one day he began to complain of a noise in his ear, which became more pronounced and grew worse daily. It seemed to be deep in his head and behind his eyeball. The diagnosis had been made largely by the patient before my arrival. He was almost hysterical from the continuous noise in his head, which was present every moment when he was awake. At the time I examined him there was no obvious change in his eye, whatever. On examination the eye was apparently normal both interior and exterior. He had no diplopia. Due to the cast on his limb he was not able to move around much and few tests could be made. I advised surgery as his best avenue to a cessation of this bruit. When the stethoscope was placed on the temple or over the upper lid the bruit was

distinctly heard. As soon as the patient was able physically a partial ligation of the carotid artery was done; the bruit stopped immediately. To him nothing else mattered.

Later this patient came to Dallas to see me several times, at intervals of a few months. Each time he was quite happy, was working and had no ocular symptoms of any kind. However, after about one and one-half years time his vision had changed to 20/40 plus but he still wore no glasses nor had he had his eyes examined.

A few months ago a doctor gave me a report on this man as he had come up for examination for the army. He told me the patient had never been bothered with the noise in his head after the ligation. Further, he had lost all vision in that eye. Also it was proptosed, the lids heavy and veins greatly engorged. The eye was bulging and presented a very angry appearance. These changes, he stated, had been slow and gradual during the years that had elapsed since his accident. He had never had any further surgery or made any attempt to benefit the condition. He always said as long as he was not annoyed by the noise nothing else mattered.

Dr. P. W. Malone, Big Spring: Dr. Ball has certainly given us an interesting review of the literature and an interesting case report of a most unusual condition. It is quite valuable to have such unusual cases presented on our program by those who are fortunate enough to diagnose and treat such cases.

This case is particularly interesting in that it has been correctly diagnosed and followed for a period of four years. It is unusual that such a pathologic condition continues for so long a period of time without requiring treatment. The bruit associated with these cases is usually so annoying that relief is demanded by the patient.

I wish to thank Dr. Ball personally for his presentation of this most interesting case because he has given me some knowledge of a condition about which I formerly knew very little.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association. Dr. Herman L. Kretschmer, Chicago, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association. Dr. Edgar G. Ballenger, Atlanta, Ga., President; C. P. Loranz, Empire Building, Birmingham, Alabama, Secretary-Manager.

Southwest Allergy Forum, Jung Hotel, New Orleans, April 5-6, 1945. Dr. Ralph Bowen, Houston, President; Dr. George Owen, 910 North State St., Jackson, Miss., Secretary.

Texas Ophthalmological and Otolaryngological Society, San Antonio, December 7-8. Dr. M. K. McCullough, Dallas, President; Dr. E. D. Dumas, San Antonio, Secretary.

Texas Radiological Society, Dr. Palmer E. Wigby, Houston, President; Dr. Asa Seeds, Dallas, Secretary.

Texas Club of Internists. Dr. Merritt B. Whitten, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, San Antonio, fall, 1945. Dr. Allen Stewart, Lubbock, President; Dr. Julius McIver, 1314 Medical Arts Building, Dallas, Secretary.

Texas Pediatric Society. Dr. Frank H. Lancaster, Houston, President; Dr. John Ashby, Dallas, Secretary.

Texas Neuropsychiatric Association. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Railway and Traumatic Surgical Association. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society of Pathologists, Dallas, Jan. 27, 1946. Dr. Paul Brindley, Galveston, President; Dr. John J. Andujar, 1300 W. Cannon Ave., Fort Worth, Secretary.

Texas State Heart Association. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Dermatological Society. Dr. Lewis Pipkin, San Antonio, President; Dr. Duncan O. Poth, 1230 Nix Professional Building, San Antonio, Secretary.

Texas Surgical Society, Fort Worth, April, 1945. Dr. Sam Weaver, Dallas, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Association of Medical Anesthetists. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Society of Gastro-enterologists and Proctologists. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Society for Mental Hygiene. Dr. Charles W. Castner, Capitol Building, Austin, President; Miss Jennie S. Wilmot, University of Texas, Austin, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Tuberculosis Association. Dr. J. B. White, Amarillo, President; Miss Pansy Nichols, Austin, Executive Secretary.

Texas Public Health Association. Dr. George A. Gray, Sweetwater, President; Mr. Alan C. Love. City Hall, Waco, Secretary.

Texas Chapter American College of Chest Physicians. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Hospital Association, Galveston, 1944. Miss Eva Wallace, All Saints Hospital, Fort Worth, President; Miss Madelyne Sturdavant, Methodist Hospital, Dallas, Secretary.

Third, Panhandle, District Medical Society, Amarillo, April 10-11. Dr. D. D. Cross, Lubbock, President; Dr. George Powers, Amarillo, Acting Secretary.

Fourth District Medical Society, Brownwood, 1945. Dr. V. E. Schulze, San Angelo, President; Dr. J. M. Horn, Brownwood, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin District Society. Dr. Joe Gilbert, Austin, President; Dr. A. A. Terry, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society. Dr. C. E. Willingham, Tyler, President; Dr. F. E. Felder, Palestine, Secretary.

Twelfth, Central Texas, District Society, Marlin, July 10. Dr. C. M. Simpson, Temple, President; Dr. R. J. Hanks, Waco, Secretary.

Thirteenth, Northwestern, District Society. Dr. J. W. Foy, Seymour, President; Dr. Joe R. Wise, 1212 W. Lancaster, Fort Worth, Secretary.

Fourteenth District Society, Dallas, June, 1945. Dr. W. C. Morrow, Greenville, President; Dr. R. S. Usry, 1835 Garrett, Dallas, Secretary.

Fifteenth, Northeast, District Society. Dr. Joe D. Nichols, Atlanta, President; Dr. Henry H. Niehuss, Gladewater, Secretary.

COMBAT BADGE FOR MEDICAL PERSONNEL

A special badge has been authorized for Medical Department personnel who daily share with the infantry the hazards and hardships of combat. Made of silver, the Medical Badge is elliptical in shape with the caduceus and the Geneva Cross superimposed on a litter surrounded by a wreath of oak leaves. It is to be worn on the left breast above decorations and service ribbons.

The badge was established in recognition of "the important role being performed by medical personnel on duty with infantry units, especially infantry battalions." Enlisted and officer personnel below field grade (major) and regimental surgeons regardless of rank are eligible for the badge if they have seen combat service with the infantry since December 7, 1941.—S. G. O. Notes, March 15, 1945.

HOSPITALS NEEDING INTERNS AND RESIDENTS

All Saints Hospital, Fort Worth. Capacity, 100; admissions, 4,819; Miss Eva Wallace, Superintendent (1 general resident immediately).

Austin State Hospital, Austin. Capacity 2,810; admissions 1,060. Dr. A. T. Hanretta, Superintendent (3 residents, $200 per month, plus maintenance for self and family. 1 senior intern, $150 per month plus maintenance self and family; 2 junior interns, $100 per month, plus maintenance for self and family.)

El Paso City County Hospital, El Paso. Capacity 192. Dr. A. H. Butler, Superintendent (1 resident and 2 interns).

Methodist Hospital, Dallas. Capacity 176 beds. C. W. Sensenbach, M. D., Medical Director (2 interns now; 4 interns July 1).

Nix Hospital, San Antonio. Capacity 145; admissions 5,564. Ellen Louise Brient, R. N., Superintendent (1 intern now).

St. Paul Hospital, Dallas. Capacity 270 beds. C. W. Sensenbach, M. D., Medical Director (1 intern now; 2 interns July 1).

Wichita General Hospital, Wichita Falls, capacity 135; admissions 4,303. Mrs. Margaret Hales Rose, Superintendent (2 residents needed at once. Salary $175.00 and maintenance).

SCIENTIFIC SECTION PROGRAMS

SECTION ON MEDICINE

Chairman—W. H. Potts, Dallas.

Secretary—Gladys Fashena, Dallas.

Guests of Honor—B. K. Wiseman, Professor of Medicine, University of Ohio School of Medicine, Columbus, Ohio; William Dock, Professor of Medicine, Long Island College of Medicine, Brooklyn, New York.

Military Guest—Colonel Henry M. Winans, Brooke General Hospital, San Antonio.

The Nephrotic Syndrome in Diabetes Mellitus—Edward J. Lefeber and George M. Decherd, Galveston.

The Surgical Treatment of Hypertension—C. R. Snodgrass, Galveston.

Organic Lesions Due to Social Maladjustment—William Dock, Brooklyn, New York.

The Experimental Basis for the Pathogenesis and Treatment of Essential Hypertension—Arthur Grollman, Dallas.

Medical Disabilities Under Combat Conditions—Colonel Henry M. Winans, M. C., A. U. S., Brooke General Hospital, San Antonio.

Survey of 100 Rheumatic Fever Patients, Age Group 18 to 24 years—Captain R. W. Kimbro, Army Airfield Regional Hospital, San Antonio Aviation Cadet Center, San Antonio.

Periarteritis Nodosa—George M. Jones, Dallas.

Leukopenia, Leukocytosis and Leukemia—B. K. Wiseman, Columbus, Ohio.

The Use of Penicillin in the Treatment of Subacute Bacterial Endorcarditis—F. Hartman and Morris Kilgore, Houston.

Treatment of Neurosyphillis—Edward Randall, Jr., Galveston.

Gastrointestinal Disorders Simulating Cardiac Disease—Tinsley Harrison, Dallas.

The Incidence of Rheumatic Valvulitis in Military Induction Examinations, With Special Reference to Cardiac Evaluation—Charles Shafer, Houston.

Some Aspects of Diabetes Mellitis—James A. Green, Houston.

Chronic Brucellosis—J. W. Torbett, Sr., Marlin.

The Diagnosis and Management of Jaundice—Raymond Gregory, Galveston.

SECTION ON SURGERY

Chairman—R. Wilson Crosthwait, Waco.

Secretary—H. Walton Cochran, Dallas.

Honor Guests—Thomas G. Orr, University of Kansas Hospitals, Kansas City, Kansas; O. Theron Clagett, Mayo Clinic, Rochester, Minnesota.

Penetrating Wounds of the Heart—John M. Thiel, Galveston.
Discusser—James Nixon, San Antonio.

The Use of Cotton Sutures in General Surgery—W. E. Whigham, McAllen.
Discusser—J. V. Goode, Dallas.

Wilm's Tumor—John M. Pace, Dallas.
Discusser—Robert E. Cone, Galveston.

Pulmonary Suppurative Diseases—O. T. Clagett, Rochester, Minnesota.

Ruptured Intervetrebral Disk—Robert L. Sewell, Fort Worth.
Discusser—James Greenwood, Jr., Houston.

Bronze Screws and Plates in Fracture Fixation—Charles E. Collins, Waco.
Discusser—Walter Stuck, San Antonio.

Bronchiestasis—Harry E. Nelson, Dallas.
Discusser—A. O. Singleton, Galveston.

Terminal Saphenous Resection—Emile Zax, Houston.
Discusser—George H. Brandau, Houston.

Carcinoma of the Penis—Charles A. Hooks, Galveston.
Discusser—Weems Turner, Houston.

Surgery of the Pancreas—Thomas G. Orr, Kansas City, Missouri.

Is Ligation of the Severed Ureter Justified?—A. Keller Doss, Fort Worth.
Discusser—A. I. Folsom, Dallas.

Congenital Pyloric Stenosis—J. W. Duckett, Dallas.
Discusser—E. J. Poth, Galveston.

Anesthesia in Upper Abdominal Surgery—E. F. Weir, Dallas.
Discusser—Harvey C. Slocum, Galveston.

The Use of Sodium Pentothal in Thyroid Surgery—W. E. Crump, Wichita Falls.
Discusser—A. C. Scott, Jr., Temple.

Surgery of the Aged—O. T. Clagett, Rochester, Minnesota.

Resection of the Right Colon for Carcinoma—James E Hendricks, Amarillo.
Discusser—John T. Moore, Houston.

Central Bone Tumors—Ben L. Schoolfield, Dallas.
Discusser—Joe B. Foster, Houston.

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman—Robert A. Johnston, Houston.

Secretary—John D. Weaver, Galveston.

Honor Guest—Nicholson J. Eastman, Obstetrician-in-Chief, The Johns Hopkins Hospital, Baltimore, Maryland.

Fundamental Principles in the Treatment of Cervix Cancer—Major Axel N. Arneson, M. C., A. U. S.

Vulval Malignancies—E. W. Bertner, Houston.

Evaluation of Nutritional Status in Pregnancy—Janet Caldwell, Dallas.

Differential Diagnosis of Abdominal Conditions in Women—Willard R. Cooke, Galveston.

Essentials to Adequate Gynecologic Patient Study—A. L. Dippel, Houston.

Management of Placenta Previa—Nicholson J. Eastman, Baltimore, Maryland.

Observations on Granuloma Inguinale—C. N. Frazier, R. I. Wise, and C. M. Pomerat, Galveston.

Sterility—Lee J. Glober, San Antonio.

A Resume of More Than Six Thousand Obstetrical Cases in Harris Memorial Hospital, Fort Worth, Texas—Roy L. Grogan, G. Herbert Beavers, Jerrell Bennett, Carey Hiett, Fort Worth.

Clinical Estimation of the Bony Pelvis—William F. Mengert, Dallas.

Vena Cava Ligation in the Treatment of Pelvic Thrombophlebitis—Walter S. Morse, Houston.

Morbidity Following Cesarean Section—Major James M. Siever, M. C., A. U. S.

Cord Blood: A Study of Routine Smears—John G. Sinclair.

Anesthesia for Caesarean Section—H. C. Slocum and C. R. Allen, Galveston.

Some Indications for Gynecological Operations—A. Ewing Winsett, Amarillo.

Case Reports: (a) Air Embolism in Fetus and Mother Proven by Autopsy; (b) Massive Pulmonary Embolism as a Result of Phlebothrombosis in Vessels of Pelvis and Leg—Henry Sweets, Galveston.

Sterilization in the Female Immediately Postpartum—Allen T. Stewart, Lubbock.

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman—Sam N. Key, Austin.

Secretary—C. S. Sykes, Galveston.

Honor Guest—P. J. Leinfelder, Department of Ophthalmology, University Hospitals, State University of Iowa, Iowa City, Iowa.

Chairman's Address: The Obligations of the Surgical Specialist—Sam N. Key, Austin.

Value of Sutures in Cataract Extraction—Ray Daily and Lieutenant (jg) Louis Daily, Jr., M. C., USNR, Houston.

Congenital Cataract—Charles Potts, Houston.

Traumatic Lesions of the Eye—Lieut. Col. Brittain F. Payne, M. C., AUS, Randolph Field, Texas.

Survey of the Blind in the State of Texas—John A. Crockett, Austin.

Functional Changes in Vision—P. J. Leinfelder, Iowa City, Iowa.

Refraction—W. B. Potter, Galveston.

Mycotic Infection of Cornea—E. M. Sykes, San Antonio.

Plastic Correction of External Nasal Deformities—John H. Barrett, Houston.

Cicatricial Stenosis of the Esophagus—George McReynolds, Galveston.

An Experimental Study of the Etiology of Otomycosis—W. B. Sharp, Galveston; J. M. Robison, Galveston; Mildred John, Galveston.

Radium Therapy of Primary Epibulbar Carcinoma—C. M. Griswold and S. S. Bowen, Houston.

SECTION ON RADIOLOGY AND PHYSIOTHERAPY

Chairman—Tom B. Bond, Fort Worth.

Secretary—Asa E. Seeds, Dallas.

Honor Guest—Robert J. Reeves, Professor of Radiology, Duke University School of Medicine, Durham, North Carolina.

Chairman's Address—Tom B. Bond, Fort Worth.

Pericardial Hernia—Morton Mazer, Dallas.

Hernia of Esophageal Hiatus and Phrenic Ampulla—R. P. O'Bannon, Fort Worth.

Lesions of Small Intestine—Robert Moreton, Temple.

Megacolon—Robert J. Reeves, Durham, North Carolina.

Carcinoma of the Ear—Charles L. Martin, Dallas.

Radiosensitivity of Tumors—Thomas Russell, Houston.

Intravaginal Irradiation of Carcinoma of Cervix—Palmer Wigby, Houston.

Further Reports on Rotation Treatment, Carcinoma of Cervix—J. J. Faust, Tyler.

Surgical Treatment Compared to Irradiation for Carcinoma of Cervix (Epidermoid, squamous cell) with a Review of the Literature—Asa E. Seeds, Dallas.

Seminar: Function of Tumor Clinics in Medical and Public Education and in Social Service—Robert J. Reeves, Durham, North Carolina; E. W. Bertner, Houston; C. M. Griswold, Houston; Palmer Wigby, Houston; W. S. Wallace, Galveston.

SECTION ON PUBLIC HEALTH

Chairman—Victor E. Schulze, San Angelo.

Secretary—T. E. Dodd, Austin.

Report from the State Health Officer—George W. Cox, Austin.

Governing a Health Unit—Ernest Langford, Member, Board of Health, College Station.
Discusser—H. M. Williams, Fort Worth.

Orientation: Private Practice and Public Health Endeavors—Victor E. Schulze, San Angelo.

The Program of the Tom Green County Tuberculosis Association—Weldon Surber, President, Tom Green County Tuberculosis Association, San Angelo.
Discusser—Erle D. Sellers, Abilene.

Tuberculosis in Selected Groups—Howard E. Smith, Austin.
Discusser—John R. Turner, Uvalde.

Planning a Routine Immunization Program—W. R. Ross, Tyler.
Discusser—C. P. Brown, El Campo.

Typhus Control—Austin E. Hill, Houston.
Discusser—Lewis C. Robbins, San Antonio.

Vital Statistics in Public Health—Alan C. Love, Secretary, Texas Public Health Association, Waco.
Discusser—E. W. Prothro, Austin.

The Venereal Disease Conference—Garland Franks, Assistant City Manager, Wichita Falls.
Discusser—Robert T. Potter, San Antonio.

Venereal Disease Case Finding—D. F. Bradley, Corpus Christi.
Discusser—W. C. Morgan, Supervisor, Venereal Disease Investigators, State Department of Health, Austin.

The Texas Venereal Disease Law—Ben Woodall, Assistant Attorney General, and Wm. J. Fannin, Assistant Attorney General, Austin.

Field Practice in Preventive Medicine for Medical Students—Carl A. Nau and Carl U. Dernehl, Galveston.
Discusser—L. A. Byers, Edinburg.

El Paso Public School Health Program—W. B. Prothro, El Paso.
Discusser—J. A. Olean, Midland.

SECTION ON CLINICAL PATHOLOGY

Chairman—J. F. Pilcher, Corpus Christi.

Secretary—W. N. Powell, Temple.

Honor Guest—J. W. Kernohan, Head of Section on Pathology and Neuropathology, Mayo Clinic, Professor of Pathology, Mayo Foundation, Rochester, Minnesota.

Chairman's Address—J. F. Pilcher, Corpus Christi.

Pleural Mesothelioma—W. W. Coulter, Jr., Houston.
Discusser—Henry Hartman, San Antonio.

Gram Negative Intestinal Bacilli from the Southwest—McDonald Fulton, Ph. D., Dallas.
Discusser—S. J. Bohls, Austin.

Air Borne Fungi in Allergic Diseases—Major Stanley F. Hampton, M. C., AAF Regional Hospital, San Antonio; Lt. F. W. Bieberdorf, A. C., AAF Regional Hospital, San Antonio; Lt. Edwin T. Lowe, A. C., Camp Detrick, Frederick, Maryland.
Discusser—Homer Prince, Houston.

Classification of Tumors of the Spinal Cord—J. W. Kernohan, Rochester, Minnesota.

Physical Factors in Cancer—W. A. Selle, Ph. D., Galveston.
Discusser—Charles Phillips, Temple.

Clinico-Pathological Conference—Paul Brindley, Professor of Pathology, University of Texas School of Medicine, Galveston; George T. Caldwell, Professor of Pathology, Southwestern Medical College, Dallas; Stuart Wallace, Professor of Pathology, Baylor University College of Medicine, Houston.

SECTION ON PEDIATRICS

Chairman—C. B. Alexander, San Antonio.

Secretary—Francis A. Garbade, Galveston.

Honor Guest—William Bradford, Associate Professor of Pediatrics, The University of Rochester, Strong Memorial Hospital, Rochester, New York.

Loefflers Syndrome with Case History—George O'Byrne, Corpus Christi.

Pyelitis in Infants and Children—J. A. Bybee, Beaumont.

The Consideration of the Feet of Infants and Young Children in Regard to Congenital Anomalies and Mechanical Instabilities—G. W. N. Eggers, Galveston.

Obscure Abdominal Pain in Children—J. A. Nunn, San Antonio.

The Cryptorchid Child—Robert E. Cone, Galveston.

Pertussus—William L. Bradford, Rochester, New York.

A Survey of Tuberculosis Observed at Freeman Memorial Clinic 1934 to 1944—Guy Hacker, Dallas.

Reports of Five Infants Presenting Abnormalities Whose Mothers had Rubella during the First Two Months of Pregnancy—Laura C. Bickel, Houston.

Developmental Diagnosis, Its Practical Value to the Pediatrician—Ramsay Moore, Dallas.

Penicillin in the Treatment of Congenital Syphilis—Erle E. Wilkinson, Galveston.

Shick Tests in Children—Thomas J. McElhenney, Austin.

Relation of Teeth to Thyroid—Clarence E. Gilmore, Paris.

Maternal Overprotection in Smaller Children—C. S. E. Touzel, Fort Worth.

SOUTHWESTERN MEDICAL COLLEGE LIBRARY BENEFIT BANQUET

Mr. Edward W. Brady, representative of Mead Johnson and Company, and chairman of publicity committee for the event, announces that a benefit banquet will be held May 18, at the Adolphus Hotel, in the interest of securing funds for the library of the Southwestern Medical College, Dallas. The seven organizations which have joined in the movement are: Dallas County Medical Society, Dallas County Dental Society, Dallas County Pharmaceutical Association, Medical Service Society, District No. 4 Texas Graduate Nurses Association, Dallas Hospital Council, Dallas County Dental Assistants.

The Medical Service Society in the groups listed here is made up of representatives of leading manufacturers of pharmaceuticals. They have been organized for two years and have adopted the library fund as a project of their organization. The unified effort being made by the seven organizations named is an outgrowth of the work of the Medical Service Society.

Tickets to the benefit banquet will be $5.00, which will include the dinner, a program of fast-moving entertainment, and a contribution to the library fund. Tickets are available at the library of the Southwestern Medical College, 3705 Maple, Dallas 4, Texas.

DALLAS ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

The Dallas Academy of Ophthalmology and Otolaryngology will meet May 1 at the Dallas Athletic Club. A dinner will be given at 6:30 p. m. honoring members of the Fort Worth Eye, Ear, Nose and Throat Society.

Following the dinner, a symposium on exophthalmos will be presented by Dr. Dan Brannin, who will discuss the subject from the standpoint of the ophthalmologist; Dr. John McLaurin, as otolaryngologist; Dr. Albert D'Errico as neurologist, and Dr. A. W. Harris, as internist.

Dr. A. E. Jackson, Fort Worth, will serve as commentator, and discussers will be Drs. James J. Richardson and T. L. Goodman, Fort Worth.

All who wish to attend must make reservations in advance for the dinner. Any member of the State Medical Association is cordially invited to attend.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY EXAMINATIONS

The American Board of Obstetrics and Gynecology will conduct general oral and pathology examinations (Part 2) for all candidates at Atlantic City, New Jersey, from June 14 through June 19, inclusive. The Hotel Shelburne will be headquarters for the board. Hotel reservations should be made directly with the hotel.

Candidates for re-examination for part 2 must make written applications to the secretary at 1015 Highland Building, Pittsburgh 6, Pennsylvania, not later than April 15.

The Office of the Surgeon General, U. S. Army, has issued instructions that army medical officers eligible for board examinations be encouraged to apply and that they may request orders to detached duty for the purpose of taking these examinations whenever possible.

Candidates in Military or Naval Service are requested to keep the Secretary's office informed of any change in address.

Deferment without time penalty under a waiver of published regulations applying to civilian candidates, will be granted if a candidate in service finds it impossible to proceed with the examinations of the Board.

Applications for 1946 examinations are now being received in the secretary's office, from which application blanks and further information may be secured.

REPORTS TRANSMISSION OF PENICILLIN FROM MOTHER TO UNBORN CHILD

"Transmission of penicillin from mother to unborn child through the placental barrier is reported by H. J. Greene and G. L. Hobby of King's County Hospital, Brooklyn," *The Journal of the American Medical Association* for March 17 announces. "Four normal patients were tested while in active labor, delivery being expected within two hours. From 20,000 to 100,000 Oxford units of penicillin was injected intravenously into each patient. Samples of maternal blood were taken at the time of delivery, with a sam-

ple of placental cord blood as soon as the baby was separated from the placenta. The serum from each blood sample was titrated for penicillin, hemolytic streptococci being used as the test organism. At the time of delivery (thirty minutes to two hours after injection) the amount of penicillin in the maternal blood varied from 0.01 to 0.19 Oxford unit per cubic centimeter, with an average of 0.084 Oxford unit. The average titer of the cord blood was 0.034 Oxford unit, or 40 per cent of that in the maternal circulation. Apparently, then, penicillin passes through the human placenta in sufficient amounts to raise the penicillin titer of the fetal blood stream well above the bacteriostatic level. Practical applications of the implied antepartum penicillin therapy have not yet been suggested."

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of tbe Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of tbe expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association to the following during March:

Dr. Ottis Walker, Mission—*Thyroid, hyperthyroidism* (6 articles).

Dr. Leon C. Kopecky, San Antonio—*Periarteritis, nodosa* (19 articles).

Dr. A. O. McCary, Freeport—*Impregnation* (12 articles.

Dr. Thomas E. Cook, Dallas—*Keloids, therapy* (8 articles).

Dr. J. L. Jennings, Roxton—*Carbuncles* (14 articles).

Dr. D. R. Scott, Brownwood—*Arthritis* (2 articles).

Drs. Lamm & Lamm, La Feria—(2 journals, 1 book).

Dr. D. B. Gregg, Round Rock—*Penicillin* (24 articles).

Dr. W. Auda Vee Cash, Abilene—*Uterus, hydatiform mole* (15 articles).

Dr. O. H. Chandler, Ballinger—*Blood, sedimentation* (18 articles).

Maj. Theodore Moberg, Jr., Camp Maxey—(5 journals).

Medical Library, Ashburn General Hospital, McKinney—(3 journals).

Capt. Marcus E. Cox, Sheppard Field, Wichita Falls—(2 journals).

Dr. J. R. Nicholson, San Antonio—*Colitis, mucous* (14 articles).

Dr. A. L. Delaney, Liberty—*Vertigo, aural* (7 articles).

Dr. Ernestine Smith, Amarillo—*Penicillin* (7 articles); *Oxyuriasis, therapy* (5 articles); *Workman's Compensation and Insurance* (7 articles).

Maj. Oscar N. Mayo, Fort Sam Houston—*Osteochondritis, deformans juvenilis* (10 reprints).

Dr. J. E. Smith, Weatherford—*Sarcoma, osteosarcoma* (8 articles).

Dr. Albert O'Errico, Dallas—(1 journal).

Southwestern Medical College, Dallas—(1 journal).

Maj. M. A. Forbes, Camp Maxey—*Skin, cancer* (12 articles).

Dr. Robert J. Hanks, Waco—*Undulant Fever* (28 articles).

Maj. S. H. Nickerson, Camp Maxey—(2 journals).

Dr. F. T. McIntire, San Angelo—*Colitis, ulcerative* (1 article).

Dr. Ben M. Shelton, Brownwood—*Medicine, socialized* (24 articles).

Lt. Robert P. Dorin, Temple—(4 articles).

Lt. Col. Abner A. Ross, Camp Hood—*Thrombophlebitis* (20 articles).

Lt. Col. H. L. Granoff, Camp Maxey—*Pneumoperitoneum* (16 articles).

Dr. O. Garcia, McAllen—(3 journals).

Dr. J. B. Baldwin, Marshall—*Keratoconjunctivitis* (13 articles).

Dr. Leo N. Roan, Weatherford—*Diabetes Insipidus* (15 articles).

Dr. Heinrich Lamm, La Feria—*Ovary, cysts* (10 articles).

Summary

Reprints received, 878	Local users, 25
Journals received, 168	Borrowers by mail, 32
Items consulted, 90	Packages mailed, 41
Items taken out, 85	Items mailed, 339.

Total items consulted and loaned, 514.

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso Street, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during March:

Immunization Against Infectious Diseases (Available for loan through courtesy of Lederle Laboratories, Inc.) Parent-Teachers Association, Liberty.

Choose to Live (Available for loan through courtesy of the U. S. Public Health Service and the American Society for the Control of Cancer) Falls County Public Schools, Marlin.

Health is a Victory (Available for loan through the courtesy of the American Social Hygiene Association) Falls County Public Schools, Marlin.

Know for Sure (Available for loan through courtesy of the Texas State Board of Health) Falls County Public Schools, Marlin.

Pneumonia, Diagnosis and Treatment (Available for loan through the Lederle Laboratories, Inc.) Hill County Medical Society, Hillsboro.

Psychiatry in Action (Available for loan through courtesy of the British Information Services) Galveston County Medical Society, and St. Mary's Infirmary Surgical Nursing Class, Galveston.

Modern Nutrition (Available for loan through courtesy of E. R. Squibb and Sons) Premedical Club, Murray College, Beaumont.

Vitamins, and Some Deficiency Diseases (Available for loan through courtesy of the Lederle Laboratories, Inc.) Premedical Club, Murray College, Beaumont.

NEWS

Baylor News.—Dr. J. Arnold Bargen, associate professor of medicine of the Mayo Foundation and consultant and chief of the section on intestinal diseases of the Mayo Clinic, gave a lecture on "Common Lesions of the Small Intestines and Their Management," at Baylor University College of Medicine, Houston, February 26, advises the Houston *Post*.

Dr. Bargen also delivered an address in the Houston Y. M. C. A. Auditorium on "Modern Concept of Intestinal Infection," on the same date. Dr. Bargen's appearances were under the auspices of the Phi Chi medical fraternity. Students and faculty members of the medical school, the University of Houston, Rice Institute, and physicians and members of hospital staffs of Houston were especially invited to the lectures.

Dr. Walter C. Alvarez, professor of medicine at the University of Minnesota graduate school and consultant to the division of medicine of the Mayo Clinic, Rochester, Minnesota, was a speaker at Baylor University College of Medicine, Houston, on March 6, states the Houston *Post*. Dr. Alvarez addressed the Harris County Medical Society in the evening of the same day. Dr. Alvarez is editor of *Gastroenterology*, the official publication of the American Association of Gastroenterologists.

Occupational Therapy Lectures will be delivered by members of the faculty of Southwestern Medical College, Dallas, at the Texas State College for Women, Denton, according to an announcement by President Hubbard, published in the Denton *Lasso*. The lectures will be attended not only by occupational therapy students in the college, but also by biology students and students majoring in home economics who plan to be hospital dietitians. The lecturers and their subjects are as follows: Dr. Ozro T. Woods, Recovery from Medical and Surgical Illness; Dr. Brandon Carrell, Orthopedics; Dr. Gladys Fashena, Rheumatic Fever; Dr. J. Warner Duckett, Burns and Plastic Surgery; Dr. John Chapman, Tuberculosis; Dr. Alfred W. Harris, Cardiac Disease; Dr. Lester H. Quinn, Blindness; Dr. John G. Young, Pediatrics; Dr. J. Dudley Singleton, Deafness; Dr. Fred T. Rogers, Neurology; Dr. Francis T. Harrington, Psychiatry. In addition to these lectures, an Army physician from Ashburn General Hospital, McKinney, will lecture on Arthritis.

Houston Hospitals Receive Large Donations.—The Houston *Chronicle* announces that Memorial, Methodist, and Hermann hospitals, Houston, each are receiving $1,000,000 from Mr. and Mrs. H. R. Cullen of Houston. Hermann hospital plans to use its donation to build a new building furnishing from 450 to 500 beds in an expansion program estimated to cost $4,500,000. Methodist hospital will use its gift in rebuilding in a new location, using in connection, funds obtained from other donors. Memorial hospital has plans for a school and residence building for some 250 nurses, the structure to be known as the Roy and Lillie Cullen Building. Mr. and Mrs. Cullen have contributed approximately $500,000 to the University of Houston; $335,000 for construction of a liberal arts building in memory of their son, Roy Gustav Cullen, who was killed in an oil field accident several years ago. The Cullens have made large contributions to other civic enterprises.

The Chatman Hospital and Clinic for Negroes, Lubbock, was formally dedicated in services held at the Dunbar high school, March 13, reports the Lubbock *Avalanche-Journal*. The hospital building, located on the corner of Avenue C and Twenty-third Street, was completed about January 15, and is now ready for occupancy. The structure is of native gray cement tile, two stories in height. It has a capacity of sixteen patients and will accommodate twenty patients in an emergency. There are three private rooms, an emergency room, operating room, x-ray laboratory, delivery room, nursery, and three large wards. The nursery will accommodate eight babies.

Dr. Chatman, Negro physician and surgeon, who envisioned a hospital and began plans for it over four years ago, is the owner and operator of the institution. Lacking financial backing and armed with little more than determination, he with his two sons and a mule, began preparation for the building in 1942. They excavated for a part of the basement and laid concrete walks and driveways. The hospital site was purchased in 1940, at which time the grounds were terraced and landscaped complete with shrubbery and trees. After many months of hard work, a partial loan was secured from the First Federal Savings and Loan Association, and with the financial backing of four anonymous Lubbock business men, actual construction of the building began.

Dr. Chatman has been a practicing physician in Carver Heights, Lubbock, for more than five years, and a physician and surgeon for eighteen years.

Dallas Seeks Appropriation for State Hospitals.—Appropriations of $1,500,000 to establish three state hospitals in Dallas is asked for in a bill pending in the Legislature, states the Dallas *News*. It is pointed out that previous Legislatures have authorized the hospitals but funds for constructing them have not been appropriated to date. Authority to build state cancer and pellagra hospitals in North Texas was given by the Legislature sixteen years ago. In 1931, the Legislature passed a bill providing for two psychopathic hospitals, one in Galveston and the other in Dallas. Funds were appropriated for the building of the Galveston institution, but none for the Dallas project. The present bill provides that the hospitals be located within five miles of the Dallas city limits, and authorizes the State to spend 10 per cent of the appropriation to buy land. Dr. E. H. Cary, president of the Southwestern Medical Foundation, Dallas, points out that building the state institutions on a site near the foundation would provide mutual benefits. Students in Southwestern Medical College would have the opportunity of observing patients in the institutions and the hospitals would have the facilities of the foundation units and the services of the foundation student nurses.

Houston Drive Against Typhus Fever.—The opening gun of a city-wide campaign to educate the public on the causes and prevention of typhus fever, a major city health problem, was fired recently by Dr. Austin E. Hill, city health officer, states the Houston *Press*. Dr. Hill called a meeting of the typhus fever committee for the purpose of planning an educational campaign. He pointed out that 145 cases of typhus fever were reported in 1944 in Houston, the largest number heretofore recorded, and expressed the opinion that actually there were probably 500 cases. Of the 145 reported, 61 per cent occured in men and 39 per cent in women, with 18 per cent occuring in persons under 18 years of age; 21.5 per cent of the patients were housewives, 16.7 per cent school children, 51.3 per cent office and store workers, 7.6 per cent factory employees, 6.2 per cent shipyard workers, and 5.5 per cent railroad employees, in the major groups affected. The drive will provide lectures and educational films, as well as pamphlets on rat eradication for distribution through the school system.

Cancer Control Activities.—As a part of the nationwide movement to control cancer, a citizens' cancer committee for the M. D. Anderson cancer research hospital in Houston, was recently formed, as the only organization of its kind in the United States, states the Houston *Post*. Colonel Ike Ashburn, assistant to the president and general manager of the Todd Houston Shipbuilding Corporation, is chairman of the committee, which already has 500 members. The organization was effected by Dr. E. W. Bertner, acting director of the Anderson hospital. The immediate purpose of the committee will be to secure membership for the American Society for the Control of Cancer, during the April campaign. Texas is to raise $500,000. Of this amount

50 per cent will remain in Texas for research in the State; 10 per cent will go to the national organization; and 40 per cent will be retained in the national fund for research work throughout the United States. Dr. Bertner, in pointing out the great need for funds for cancer research, cited that there are 600,000 American victims of cancer, and that the annual death rate is 165,000; he emphasizes that deaths from cancer have been far in excess of military deaths during World War II, since it has been estimated that war casualties have been 127,000, while during the war, 495,000 have died of cancer.

The Corpus Christi Eye, Ear, Nose and Throat Society met in joint session with the Nueces County Medical Society on February 12, for a discussion of the status of penicillin therapy, informs Dr. L. W. O. Jansen, secretary. A resume of penicillin therapy in diseases of the eye, ear, nose and throat was presented by Drs. Allen, Burgess, and McCurdy, Naval medical officers who are attached to the Corpus Christi Naval Air Station. Officers of the Corpus Christi Eye, Ear, Nose and Throat Society for 1945 are: Dr. C. B. Collins, president; Dr. L. W. O. Jansen, secretary.

The Southern Section of the American Federation for Clinical Research met February 2 and 3 at the Baker Hotel, Dallas. The following scientific program was carried out during the two-day meeting:

Introductory Remarks—Alfred W. Harris, M. D., Dallas.
Disorders of the Stomach Simulating Coronary Disease—Tinsley R. Harrison, M. D., Dallas.
Results in the Treatment of Subacute Bacterial Endocarditis Employing Combined Penicillin and Heparin Therapy—Louis Levy, M. D., and M. R. McKrill, M. D., New Orleans.
Factors Influencing Circulation Time—H. A. Bailey, B. S., and L. W. Dumas, B. S., Dallas (By Invitation).
Possible Explanation of the Mechanism of Compensation of the Failing Human Heart—John S. LaDue, M. D., New Orleans.
Studies on the Pathogenesis of Pulmonary Edema Following Bilateral Vagotomy—Francis Reichsman, M. D., Dallas (By Invitation.
The Bioassay of Vasoconstrictor Substances in the Ultrafiltrates of Citrated Blood Plasma from Patients with Normal Blood Pressure, Patients with Essential Hypertension and Patients Made Hypertensive by the Injection of Angiotonin (Hypertension)—Raymond Gregory, M. D., Paul L. Ewing, M. D., William C. Levin, M. D., and Griff T. Ross, M. D., Galveston (By Invitation).
Bigeminal Rhythm—Willis Sensenbach, M. D., Winston-Salem, North Carolina (By Invitation).
Paroxysmal Ventricular Tachycardia—Don W. Chapman, M. D., Houston (By Invitation).
A Clinical Study of A-V Nodal Rhythm—Arthur Ruskin, M. D., and W. F. McKinley, Galveston (By Invitation), and George Decherd, M. D., Galveston.
A Comparative Study of Thrombo-Angiitis Obliterans in White and Negro Patients—H. A. Davis, M. D., New Orleans.
Observations on the Pathological Changes Produced by a Toxic Substance Present in Blue-green Algae—Charles T. Ashworth, M. D., Dallas; Morton Mason, Ph. D., Dallas (By Invitation).
Further Studies on the Pathogenesis of Keloids: Results from Daily Blood Serum Injections in the Dog and Human—Wallace Marshall, M. D., Mobile, Alabama.
Periarterial Infiltrations as an Adjunct in the Diagnosis and Treatment of Migraine—Reynold Patzer, M. D., H. T. Englehardt, M. D., and V. J. Derbes, M. D., New Orleans.
"Pleurisy-Like" Thoracic Hyperesthesia and Its Treatment—Arnoldus Goudsmit, Captain, M. C. AUS, McCloskey General Hospital, Tempie.
Transmission of Equine Encephalomyelitis—S. Edward Sulkin, Ph. D., Dallas.
A Study of Coccidioidomycosis Cases at the Bruns General Hospital—George J. Kastlin, Lt. Col., Samuel I. Kooperstein, Major, Murray M. Friedman, Major, and H. E. Bass, Captain, M. C., AUS, Bruns General Hospital (By Invitation).
The Effect of Rat Strain and Progesterone on the Metabolism of Alpha-estradiol—A. Segaloff, M. D., Nashville, and W. F. Dunning, M. D., Detroit (By Invitation).
Effect of High and Low Roughage Diets on the Absorption of Calcium and Thiamin from the Digestive Tract of Pre-School Children—Elizabeth M. Knott, M. D., Galveston (By Invitation).
A Type of Petit Mal and Related Brain Wave Changes Induced by Absence of Photic Stimuli—Paul M. Levin, M. D., Dallas.
An Electroencephalographic Study of Concussion—Jack I. Woolf, M. D., Chicago, Illinois (By Invitation).
Observations on the Serological Diagnosis of Congenital Syphilis —Gladys Fashena, M. D., Dallas.

Dr. Tinsley R. Harrison, Dean of the Faculty and Professor of Experimental Medicine, Southwestern Medical College, Dallas, was guest speaker at a dinner in the banquet room on the mezzanine floor of the Baker Hotel.

A short business meeting was held for members at the conclusion of the program.

Venereal Disease Conference.—A one-day conference for discussion of the control and prevention of venereal diseases, held March 5, in San Antonio, was attended by some 300 representatives of civilian and military agencies in the area. Those present adopted resolutions in support of two bills pending in the Texas Legislature, one the pre-marital and one the pre-natal bill, which have for their purpose the stamping out of syphilis. The pre-marital bill requires a blood test for syphilis on both parties applying for a license for marriage. The pre-natal bill requires the attending physician to make a blood test for syphilis on pregnant women. Resolutions were also adopted favoring legislation for a state supported institution for delinquent juvenile negro girls, and for legislation permitting the courts to commit promiscuous sex offenders to institutions for undetermined periods for rehabilitation.

Both civilian and military speakers pointed out that the absolute increase in the occurrence of venereal disease in the United States is coming from the "teen-age" girl, the non-professional or "patriotute." It was emphasized that social hygiene instructions in the schools must be increased throughout the nation.

Speakers at the conference included Dr. Arthur G. Shoch of Dallas, investigator for the National Research Foundation, who described the effects of penicillin in gonorrhea and syphilis; Scott Hardy, executive vice-president and general manager of the Texas Hotel Association, who outlined the work of hotels in combatting venereal diseases; Thomas Devine, of the Social Protection Division, Federal Security Agency, who asserted that venereal disease could be stamped out by 1950 through an extensive program of public education and strict law enforcement, backed by public demand for closing of houses of prostitution; Dr. T. E. Dodd of the State Department of Public Health, who pointed out that there had been an increase in venereal disease clinics in Texas from fifteen in 1938 to 138 at present, including five rapid-treatment centers. Dr. Dodd reported that the average length of stay in the rapid-treatment centers is 9.9 days for syphilis and 4.6 days for gonorrhea.

Among military speakers at the conference were Lt. Colonel Louis Arnoldi, Venereal Disease Control Officer of the AAF Central Flying Training Command, Randolph Field; Commander T. A. Fears, Venereal Diseases Control Officer, Eight Naval District; Commander W. H. Schwartz, of the Surgeon General's Office of the Navy; and Medical Director C. L. Williams, assistant surgeon general of the U. S. Public Health Service.

Sponsoring agencies for the conference were the Army, Navy, and Public Health Service; the Social Protection Division of the Federal Security Agency, and the American Social Hygiene Association.

Mayo Memorial Research Center.—Texas doctors and laymen will be given an opportunity to help in the erection of a center for medical research, teaching and administration as a memorial to Dr. William J. and Dr. Charles H. Mayo, world-famous Minnesota surgeons, it was announced recently by Dr. Stanley J. Seeger, Texarkana, chairman of the Texas Mayo Memorial Committee.

Serving with Dr. Seeger is a committee which will carry on the appeal in Texas for contributions to the proposed memorial to be erected on the campus of the University of Minnesota in Minneapolis. Dr. Will Mayo served the University as a

member of the board of regents for thirty-two years and Dr. Charles Mayo was for many years professor of surgery there. Work to be done through the proposed memorial research center may well affect the practice of medicine and the health of the general public everywhere, Dr. Seeger said.

The proposed Mayo Memorial will be a 12-story building, to be constructed at an approximate cost of $2,000,000. It is expected that the state legislature of Minnesota will appropriate $1,000,000 toward the cost, contingent upon the raising of the remaining million from private gifts. Bills providing for such an appropriation are now before the Minnesota senate and the house. The appeal for funds will be carried on nationally to give the friends of the Mayos all over the country a chance to contribute.

Dr. Donald J. Cowling, Northfield, Minn., president of Carleton College and nationally known figure in the world of education, is chairman of the Committee of Founders of the Mayo Memorial.

U. T. Medical School News.—The University of Texas Child Health Program in coöperation with the Maternal and Child Health Division of the Texas State Board of Health announce a postgraduate course in pediatrics to be held at the University of Texas School of Medicine, Galveston. Dr. Arild E. Hansen, Director of the University of Texas Child Health Program, states that it will be limited to forty physicians, with tuition furnished by the State Board of Health.

Preferences will be given to physicians of Texas recently returned from the armed services, and to physicians participating in the various well baby conferences in Texas. The faculty will include leading pediatricians from Yale, the University of Rochester, and Louisiana State University School of Medicine, in addition to the staff of the University of Texas School of Medicine. Application blanks for registration may be obtained from Dr. Arild E. Hansen, University of Texas School of Medicine, Galveston.

Dr. James Watson White of New York City will inaugurate the John O. McReynolds Lectureship in Opthalmology recently established at the University of Texas Medical Branch, Galveston, by Colonel and Mrs. Frank W. Wozencraft, of Washington, D. C. The inaugural lecture will be given at the University of Texas School of Medicine, Galveston, on April 6. Among the honor guests at the occasion will be Colonel and Mrs. Wozencraft and Dr. and Mrs. Marvin Lee Graves of Houston. Colonel and Mrs. Wozencraft have established the Lectureship in honor of the late Dr. John O. McReynolds of Dallas, a pioneer opthalmologist in the Southwest.

Dr. George Herrmann, Professor of Medicine at the University of Texas Medical Branch, Galveston, was the speaker at the annual meeting of the Celsus Society of San Antonio. Dr. Herrmann spoke on the history of cardiology.

One hundred and nine graduates of the University of Texas School of Medicine will receive diplomas at commencement exercises scheduled for June 1, according to Dr. George Herrmann, chairman of the committee on interneships, says the Galveston *Tribune*. The graduates will intern in the leading hospitals of the country, Hawaii, and Panama. Of the 109, thirteen will go to naval hospitals.

Bids for the demolition of University Hall, a brick structure at Eighth and Strand, Galveston, which was damaged in the tropical hurricance July, 1943, are being received, according to Dr. D. Bailey Calvin, associate dean of the University of Texas School of Medicine. The building has been condemned and its removal is necessary, advises the Galveston *Tribune*.

The William Buchanan lecture of the University School of Medicine was delivered March 5, by Dr. James S. Plant, director of Essex County juvenile clinic, of Newark, New Jersey. Dr. Plant, who was presented by Dr. Arild Hansen, director of the state child health program and professor of pediatrics at the medical school, spoke to members of the faculty and student body in the laboratory building.

Dr. Plant also delivered a public lecture at the Goliad School under the auspices of the Galveston PTA Council and Galveston County Community Council. Dr. Plant was brought to Texas through the University of Texas Medical School child health program; the child welfare division, State Department of Public Welfare; the Hogg Foundation, University of Texas; and the Texas Society for Mental Hygiene. Dr. Plant was a speaker on the program of the Texas Society of Mental Hygiene held in Austin, March 9.

University of Texas Medical School Relocation.—Proponents won the first round, admits the Galveston *News* editorially. The Senate committee on constitutional amendments after a hearing March 7, voted 7 to 3 for a favorable report on the Mauritz resolution to submit a constitutional amendment to the people providing for relocation of the school in an "urban center." The resolution now goes to the floor of the Senate for debate. It must receive a two-thirds vote of both houses of the Legislature before the proposed amendment can be submitted to the people. The *News* contends that "beyond question it is the Legislature's duty to turn the proposal down because, as matters now stand, it would be difficult, if not impossible, to obtain an informed and unbiased decision from the people." The *News* supports this statement by saying that "while we believe a great majority of the people want to do what is best for the State . . . the Mauritz amendment is so worded as to excite local and individual interests. It authorizes the Legislature to relocate the school in any 'urban center,' thereby holding out to every large city in Texas the hope that if the relocation amendment is carried, it will be able to obtain the medical school for itself." It points out that both San Antonio and Austin are active contenders but avers that Austin's eligibility under terms of the Mauritz amendment appears somewhat doubtful.

The Houston *Post* says that if the question of relocating the medical branch of the University from Galveston is submitted to the voters in the form of a constitutional amendment, as proposed, the resultant campaign will renew the controversy which has so badly disconcerted the University during the past year or so. The *Post* points out that the principal reason for wanting to move the school seems to be that a town of Galveston's size does not afford sufficient clinical material for the students. It emphasizes that there will be no point, in that case, in spending $8,000,000 of the taxpayers' money to establish a new medical college at Austin and give up the one of comparable value in Galveston, since Austin would not provide substantially more clinical material than Galveston. The *Post* states that the constitutional amendment proposed by Senator Fred Mauritz, and approved by the Senate committee, for the location of the medical branch in a "large urban center of population," would eliminate both Galveston and Austin, and presumably insure its establishment in Dallas, San Antonio, Fort Worth or Houston; that should the choice be made strictly on merit, Houston would have a walk-away. The *Post* bases its contention on the basis that not only is Houston the largest urban center of population, but in its medical center now being developed, Houston will offer advantages that no other Texas city can approach.

The Austin *Statesman*, in reporting the favorable hearing by the Senate committee on constitutional

amendments, of Senator Mauritz's proposed constitutional amendment providing for relocating of the University of Texas Medical School, admits that the measure still has a tough course to run in the Senate. It points out that the resolution must receive twenty-one votes to be adopted in the Senate, and only thirty Senators are present this session. The *Statesman* headlines its report on the Senate hearing with the statement that Texas doctors are for and Galvestonians against medical school removal. It reports that speaking for the measure were Drs. R. M. Calder, Henry Hartman and Joseph Kopecky of San Antonio; Dr. H. R. Dudgeon of Waco; Dr. Jack Furman of Fort Worth; Dr. J. A. Neely of Bellville; and two medical school seniors, naval trainee Howard LeBus of Wichita Falls, president of the students' association at Galveston, and army trainee, C. S. Daeschner of Houston. It further reports that Dr. Raymond Gregory, member of the medical school faculty, who appeared at Senator Mauritz's invitation to answer questions, stated that there is a definite shortage of clinical material at Galveston, and that in his opinion, relocation in a larger city would be an improvement; that it is time to submit the issue to the people of Texas.

The *Statesman* reports that Dr. Chauncey D. Leake, vice-president and dean of the medical school, was the principal speaker against the Mauritz measure. It avers that even Dr. Leake did not deny the inadequacies of present facilities for training doctors in Texas, but told the committee that another medical school might well be the "reasonable compromise" to the current situation. Dr. Leake strongly deplored the controversy which surrounds the medical school, which he said is certainly no help to the school's teaching program nor its war work. Dr. Leake placed location of the school secondary to "sympathetic interest from the people of the community and financial support." He argued that removal of the school from Galveston would be throwing into discard a physical plant which he values at $5,000,000. Other speakers at the hearing included Dr. T. J. Crowe of Dallas, representing the Texas State Board of Medical Examiners, who told the committee that young Texans are receiving fine medical aducations; Theodore Robinson, Galveston judge; and I. H. Kempner of the Galveston Chamber of Commerce, who spoke against the Mauritz resolution.

Mental Hygiene Meetings.—A series of meetings for the discussion of mental hygiene problems in Texas were held throughout the State from March 5 to 17, informs the Austin *Statesman*. Meetings were held under the auspices of the University of Texas Hogg Foundation for Mental Hygiene and local groups. The schedule, as planned by officers of the Texas Society for Mental Hygiene, called for meetings in Beaumont, Denton, Dallas, Galveston, Houston, San Marcos, and San Antonio.

A meeting was held at Austin March 8 and 9, for the purpose of considering mental hygiene problems in nursing, the home, the school, military services, and in youth counseling. Co-sponsors with the Hogg Foundation were the University of Texas Child Health Program, Council of Social Agencies, and Austin-Travis County Mental Hygiene Society.

Out-of-state speakers for the programs throughout the state included Commander Daniel Blaine, Public Health Service, New York; Dr. Milton E. Kirkpatrick, director of the guidance center, New Orleans; H. B. Masters, educational director of the W. K. Kellogg Foundation, Battle Creek, Michigan; and Major Paul White, psychiatrist, AUS, Camp Chaffee, Arkansas, former psychiatrist for the University of Texas.

In-state speakers included members of the faculty of the University of Texas, psychiatrists, medical officers in the armed services stationed in Texas, and others especially interested in mental hygiene.

A series of meetings throughout the State were made necessary since a state-wide conference planned to be held by the Texas Society for Mental Hygiene in Austin, was cancelled to comply with the government's request for cancellation of meetings to which more than fifty out-of-town visitors are expected.

The American College of Chest Physicians announced cancellation of the eleventh annual meeting scheduled to be held at Philadelphia, June 16-19, in coöperation with the war effort. The board of regents of the college will meet at Chicago in June to transact necessary business.

Military Personals

Lieut. Col. John Edward Kallus, Caldwell, and *Major Emil Patrick Reed*, Brownsville, were among thirteen medical officers in the first group of prisoners freed from Camp Cabanatuan on Luzon, informs the Office of the Surgeon General of the Army. The full list of prisoners freed has not yet been officially released and may contain the names of other medical officers in addition to those already reported rescued.

Major Paul C. Doehring, formerly of Houston, now stationed in the South Pacific, recently sent a check for $1,000 to the Houston Red Cross chapter, informs the Houston *Post*. With the check was a letter in which Major Doehring stated "I've seen the way the G. I.'s look to the Red Cross constantly for help. We in the medical corps do all we can toward saving lives and restoring health, but we find the Red Cross workers our righthand men and women. I'm glad to be making the biggest gift I've ever made to this wonderful organization."

Captain Walter C. Watkins, M. C., AUS, was recently promoted from the rank of Lieutenant, advises the Amarillo *Globe*.

Lt. Louis Daily, Jr. (j. g.), U. S. N. R., at the completion of a residency at the Jefferson Davis Hospital, Houston, reported to the Naval Hospital, Camp LaJeune, North Carolina.

Lieut. Col. Robert Jennings Jaehne, M. C., formerly of Austin, and *Lieut. Col. Floyd Livingston McCollum*, M. C., formerly of Mason, were recently promoted from the rank of Major, informs the Office of the Surgeon General of the Army.

Lieut. Comdr. Wm. John Pangman, M. C., U. S. N. R., formerly of El Paso, was recently ordered to active duty at the U. S. Naval Hospital, Oakland, California.

Personals

Dr. and Mrs. T. C. Binson who have been interned by the Japs in the Philippines since the attack on Pearl Harbor, December 7, 1941, have been released, informs the Galveston *Tribune*. Dr. Binson graduated from the University of Texas School of Medicine in 1940. The Binsons were released from the Santa Tomas prison.

Dr. L. H. Denman was recently appointed health officer of Angelina County, succeeding Dr. O. P. Gandy, states the Lufkin *News*.

Dr. Philip S. Joseph of Alice was recently named health officer of Jim Wells County, reports the Alice *Echo*.

Dr. J. F. Corey recently celebrated his fiftieth anniversary as a citizen and practicing physician in Rockwall, states the Rockwall *Success*.

Dr. J. H. Jernigan of Childress, was appointed health officer of that city recently, advises the Childress *Index*.

Mrs. J. D. Driver, mother of *Dr. Sim Driver* and *Dr. John B. Driver* of Dallas, died March 12 at her home in Dallas.

MARRIAGES

Dr. David McCullough was married to Miss Mary Myers of Electra, February 21, 1945. Dr. McCullough is a graduate of the University of Texas School of Medicine, and is now superintendent of the state hospital at Kerrville.

Dr. Alvin Beyer, Jr., Houston, was married to Miss Mary Tom Luton, Grand Prairie, February 3, 1945. Dr. Beyer who is now interning at Herman Hospital, Houston, is a graduate of the University of Texas School of Medicine, and Mrs. Beyer is a graduate of the University of Texas School of Nursing, John Sealy Hospital, Galveston.

SOCIETY NEWS

Brown-Comanche-Mills-San Saba Counties Society

February 15, 1945

Treatment of Sero-Negative and Sero-Positive Syphilis with Penicillin—Major J. J. Kristal, M. C., Camp Bowie.

Brown-Comanche-Mills-San Saba Counties Medical Society met February 15 at the Hotel Brownwood, with fourteen members and two visitors present. The scientific program as given above was carried out. Major Kristal reported a number of interesting case histories of sero-negative and sero-positive syphilis treated with penicillin.

E. B. Richey, director of the Brownwood-Brown County Health Unit, discussed the food handlers situation in Brown County, and also the need for skin tests for tuberculosis for high school students. He emphasized the importance of early referral to family physicians for x-ray study and necessary treatment of all students showing positive skin tests.

The society went on record as favoring Wassermann tests for all food handlers in the area. A committee will be appointed to appear before the City Council of Brownwood in an effort to secure passage of an ordinance requiring such tests.

March 12, 1945

Mesenteric Thrombosis—Terrell Speed, Temple.
Splenectomy—P. M. Ramey, Temple.

The Brown-Comanche-Mills-San Saba Counties Medical Society met March 12 at the Hotel Brownwood, with fifteen members and three visitors present. The scientific program as given above was carried out.

Major Victor P. Lief, M. C., Camp Bowie, will present the program for the next meeting.

Dallas County Society

February 6, 1945

(Reported by W. W. Fowler, Secretary)

New Observations in Nutritive Failure—Tom Spies, M. D., University of Cincinnati, Cincinnati, Ohio.

Dallas County Medical Society met February 6, in the Medical Arts Auditorium, Dallas, with sixty-seven members present.

Travis Robinson, chairman of the Phi Beta Pi fraternity, Dallas, presided, with G. E. Brereton, president of the society, as co-chairman. Donald Slaughter, dean of students, Southwestern Medical College, introduced Dr. Tom Spies of the University of Cincinnati, who gave an interesting talk on new observations in nutritive failure.

Resolutions of sympathy were adopted on the death of Dr. Rufus A. Sullivan, of Dallas.

February 22, 1945

Neurosurgery in the Treatment of Vascular Diseases—Lt. Col. M. Dawson Tyson, M. C., Ashburn General Hospital, McKinney.
The Role of Physical Therapy in the Rehabilitation of the Soldier—Captain Paul M. Kistler, M. C., Ashburn General Hospital, McKinney.
The Early Diagnosis of Rheumatoid Spondylitis—Lieutenant Charles W. Fogarty, M. C., Ashburn General Hospital, McKinney.

Dallas County Medical Society met February 22, in the Medical Arts Auditorium, with 100 members present. G. E. Brereton, president, presided, and J. B. Howell acted as secretary pro-tem in the absence of Secretary Fowler.

President Brereton introduced Colonel James B. Anderson of Ashburn General Hospital, McKinney, who, in turn, presented members of his staff who gave the scientific program given above.

Colonel Tyson illustrated his address on neurosurgery in the treatment of vascular diseases with lantern slides of unusual cases. The address was discussed by Harry Nelson and C. C. Nash.

The paper of Captain Kistler was discussed by S. F. Franklin.

Lieutenant Fogarty illustrated his paper with roentgenograms. The paper was discussed by D. K. Barnes, Ben Buford and Charles Martin.

Other Proceedings.—M. O. Rouse, chairman of the program committee, moved that the secretary of the society be authorized to pay the expenses of out-of-town guests for the meeting each quarter, such expenses not to exceed two hundred dollars. The motion carried.

It was announced that Dr. William Bickers of Richmond, Virginia, would be available March 1, and Dr. Rouse moved that the society sponsor a lecture by Dr. Bickers on that date. The motion carried.

O. M. Marchman moved that the president appoint a committee of three to confer with committees from the Dallas County Dental Society, the Dallas County Pharmaceutical Society and the Medical Service Society in the arrangement of plans for a gridiron dinner in the near future for the purpose of sponsoring the library of Southwestern Medical College. The motion carried.

Joe C. Alexander requested that a committee be appointed to coöperate with Southwestern Medical College and the Dallas Southern Clinical Society in plans for postgraduate training. President Brereton appointed the following committee for that purpose: Joe C. Alexander, Curtice Rosser and Donald Slaughter.

O. M. Marchman urged that members write their state senator and representatives concerning legislation affecting medicine and the public health.

Resolutions of condolence were adopted on the death of Dr. Charles McDaniel Rosser, of Dallas.

Jesse H. Herndon and Salmon Reclus Halpern were elected to membership on application.

At the conclusion of the business and scientific sessions, refreshments were served through the courtesy of Meyers and Rosser.

March 1, 1945

Sudden Death in a Case of Rheumatic Mitral Stenosis: Case Report—C. W. Sensenbach, Dallas.
The Clinical Significance of Disturbances of Myometrial Physiology—William Bickers, Richmond, Virginia.

Dallas County Medical Society met March 1 in the Medical Arts Auditorium with thirty-eight members present, the regular meeting date having been changed from March 8 to March 1 in order to have Dr. William Bickers of Richmond, Virginia, as guest speaker. The scientific program as given above was carried out. Dr. Bickers illustrated his address with lantern slides and charts. His presentation was discussed by W. F. Mengert, W. H. Rumpf, J. E. Robertson, Homer Donald and Donald Slaughter.

Secretary Fowler read a recommendation from M. O. Rouse, chairman of the program committee, that the second meeting in March be held with the staff of Baylor Hospital on March 20, in keeping with the suggested plan of meeting once each year jointly with each Dallas hospital staff. Dinner will be served through the courtesy of Baylor Hospital. The society voted to accept the recommendation of the committee, and the regular date of March 22 was changed to March 20, the date of the Baylor Hospital staff meeting.

Elliott Mendenhall, chairman of the legislative and public relations committee, called attention to legislation pending in the Senate and House of Representatives at Austin, which, if enacted, would affect the Texas Medical Practice Act. He urged that members write to their state senator and representatives in opposition to this legislation. Dr. Mendenhall then called upon Dr. Homer Donald, who presented and moved the adoption of resolutions expressing opposition to the passage of H. B. 29, H. B. 34, and S. B. 37, which bills, if enacted, would recognize the practice of medicine by cults without proper education or training. The motion to adopt the resolutions was duly seconded and carried.

Dr. Mendenhall also called attention to H. B. 314 which would require hospitals to admit to practice all persons licensed by the Texas State Board of Medical Examiners, or be subject to taxation. He urged that members of the society write their state senator and representatives opposing this bill, and called upon Dr. George M. Underwood who presented and moved the adoption of resolutions opposing the passage of H. B. 314. The motion to adopt the resolutions was duly seconded and carried.

El Paso County Society

February 13, 1945

(Reported by John D. Martin, Secretary)

Some Problems of Malnutrition—Walter Wilkins, U. S. Public Health Service.
Review of Allergy in 1944—L. O. Dutton, El Paso.

El Paso County Medical Society met February 13 in the club room of the Hotel Cortez, with Sam R. King, president, presiding. The scientific program as given above was carried out. A communication from the registrar of the Graduate Nurses' Directory was read, stating that because of financial reasons resulting from the shortage of nurses, twenty-four hour service could no longer be maintained. A letter was also read from the chairman of a joint committee of the Hospital Council and Private Duty Nurses Section, with regard to group nursing, following which considerable discussion was had, pro and con, regarding group nursing.

A letter was read from the University of Texas Diagnostic Clinic, Galveston. It was the concensus of opinion that transportation difficulties prevent El Paso physicians from making full use of the services offered by the clinic.

W. W. Waite and S. Perry Rogers gave a report on the likelihood of space being granted the society for a medical library and reading room in a new addition contemplated by the El Paso Public Library. The society went on record as being in favor of obtaining space for a library and reading room in the Public Library. Action with regard to a donation to the general library fund of the State Medical Association was tabled for the present.

R. B. Homan, Jr., gave a report on the recent meeting of the El Paso Tuberculosis Forum. He stated that local tuberculosis problems were being constantly studied and after the war emergency has passed, it is hoped that there will be an expansion of the tuberculosis control program.

Gray-Wheeler Counties Society

February 15, 1945

(Reported by H. L. Wilder, Secretary)

Clinical Case Reports: (1) Head Injury—C. E. High, Pampa; (2) Severe Headache—R. M. Brown, Pampa; (3) *a.* Tertiary Syphilis Treated with Penicillin; *b.* Congenital Anomaly—W. C. Jones, Pampa.
Caudal Anesthesia—W. Purviance, Pampa.
Monstrosities, with Report of a Case—W. C. Jones, Pampa.

Gray-Wheeler Counties Medical Society met February 15 in the private dining room of the Hillson Hotel, Pampa, with ten members present. Following a dinner, the scientific program as given above was carried out. In the case of head injury presented by C. E. High, there was profuse bleeding from the mouth. There was no evidence of injury in the mouth or throat, and it was thought the bleeding was from the inner ear coming into the mouth through the eustachian tube.

The case of headache reported by R. M. Brown occurred in a girl, aged 16, whose blood Wassermann test was negative but whose spinal fluid Wassermann reaction was 3 +. The father, a tabetic, has a negative blood Wassermann test.

W. C. Jones reported a case of tertiary syphilis treated with penicillin without success. Dr. Jones stated that Campbell's report on the penicillin treatments was unfavorable. He believes that heat and malaria therapy are the best forms of treatment for tertiary syphilis. Dr. Jones also reported a case of a baby born without a colon. The baby was operated upon, and there was only a string of tissue where the colon should have been.

The monstrosity reported by W. C. Jones exhibited spina bifida and anencephalus. The case was illustrated by roentgenograms and photographs. It was unusual and interesting.

Other Proceedings.—A communication from the State Association legislative committee was read regarding pending medical legislation. No action was taken as resolutions had been adopted previously asking representatives to oppose cultist legislation.

Hidalgo-Starr Counties Society

March 8, 1945

(Reported by Ottis Walker, Secretary)

Surgical Conditions—W. E. Rance, McAllen.

Hidalgo-Starr Counties Medical Society met March 8, at the Oddfellows' Hall, Donna. Members of the society attended a joint dinner with members of the auxiliary, following which the scientific program as given above was carried out. The meeting was attended by nineteen members and three visitors.

Jefferson County Society

February 12, 1945

(Reported by L. R. Byrd, Jr., Secretary)

The Clinical Use of Quinidine—George Decherd, Galveston.
Hypertension; A Survey of Recent Developments in its Study—H. J. Ralston, Galveston.

Jefferson County Medical Society met February 12, at Saint Mary's Hospital, Port Arthur, with Stuart Wier, president, presiding. The scientific program as given above was carried out. Dr. Decherd's talk was discussed by J. C. Crager, B. B. Elster, and S. T. Wier.

The paper of H. J. Ralston was discussed by S. T. Wier, H. B. Eisenstadt, B. B. Elster, H. H. Goldblum and George Decherd.

Other Proceedings.—J. C. Crager reported that he had received a reply from the invitation extended to Congressman J. M. Combs to meet with the society, and Mr. Combs had advised that he should like very much to accept the invitation when he returned to Texas. Dr. Crager further advised that Mr. Combs had requested the names of all physicians in his congressional district and the list had been furnished him through the State Office.

L. C. Powell called attention to the fact that the society had previously retained an attorney and moved that the same attorney be continued. The motion was seconded and carried.

Dr. Powell was advised that the attorney, on his request, had investigated the status of the American Association of Physicians and Surgeons and had found the organization to be on a sound legal basis.

President Wier presented a communication regarding a proposed antivivisectionist law for the District of Columbia, requesting that the society express its opinion of the bill to Congressman Combs. The matter was referred to J. C. Crager as chairman of the legislative and public health committee for action.

Secretary L. R. Byrd presented to the society the desire of one of the members to pay only the part of

the annual dues used by the local society. Dr. Byrd pointed out that the constitution and by-laws of the society set out that the annual dues included both the dues for Jefferson County Medical Society and the State Medical Association. Following discussion, the secretary was directed to consult Dr. Holman Taylor, secretary of the State Medical Association, on the matter.

L. C. Powell, stating that he was speaking for W. A. Smith, moved that the subscription to *The Journal of the American Medical Association* for Lamar College be continued for 1945. The motion was seconded by P. T. Petit, and carried.

A letter was read from A. E. Sweatland, Councilor of the Tenth District, announcing the meeting of South Texas District Medical Society to be held in Houston.

A letter was read from the Committee on Library Endowment of the State Medical Association, requesting the society to consider making a contribution to the County Medical Society Library Endowment Fund. L. C. Powell, a member of that committee, discussed the need for such a fund and moved that the society contribute $100 to the fund, which motion was seconded by P. T. Petit, and carried.

W. D. Brown discussed the need of the society for a motion picture projector and moved that a committee be appointed to investigate, and negotiate the purchase of a projector. The motion was seconded by P. T. Petit and carried.

Tarrant County Society

January 2, 1945

(Reported by X. R. Hyde, Secretary)

Reports on Penicillin in Cases of:
Acute Osteomyelitis—Bert C. Ball, Fort Worth.
Subacute Bacterial Endocarditis—Dewitt Neighbors.
Gas Gangrene—Hobart O. Deaton.

Tarrant County Medical Society met January 2, in the Medical Arts Auditorium, Fort Worth, with thirty members and eight visitors present. The scientific program as given above was carried out. The presentations were discussed by Robert L. Sewell and C. C. Garrett.

Harry D. Nifong, Mansfield, was elected to membership on application, and Gerald A. King, by transfer from the Dewitt County Medical Society.

C. C. Garrett was elected a member of the board of censors to fill the unexpired term of E. L. Howard, elected to the office of president-elect.

Secretary Hyde discussed the matter of dues for members in the armed services. He stated that $1.00 dues will be required by the State Association to cover medical defense, and the annual subscription cost of the JOURNAL is $3.00. He stated that the matter would be discussed again at the next meeting of the society, at which time decision would be made as to whether or not dues of members in the armed services would be borne by the society.

President Thomason announced that a committee would be appointed to investigate insurance offered by the World Insurance Company.

February 6, 1945

Anthrax: Case Report—J. F. Campbell, Fort Worth.
The Use of Penicillin—John Simon, Jr.

Tarrant County Medical Society met February 6, in the Medical Arts Auditorium, Fort Worth, with fifty-eight members and one visitor present. The scientific program as given above was carried out. W. H. Teague was elected to membership on application.

Following discussion of whether or not the society should pay the 1945 annual dues of members in the armed services, H. O. Deaton moved that State Association dues for members in the service be borne by the society, and that the board of trustees determine whether or not an assessment is necessary, and if so, to assess the membership of the society to cover it. The motion was seconded by Tom B. Bond, and carried.

Tributes were paid to the late Dr. Craig Munter, a member of the society, and the late Mr. Bob Barker, father of Captain Bob Barker.

George R. Enloe was elected to the office of vice-president.

Frank S. Schoonover spoke on the Psychiatric Clinic for children being sponsored by the Council of Social Agencies.

R. G. Baker moved that the president, as a member of the Council of Social Agencies, investigate the clinic and give a report on it at the next meeting.

Judge M. Lyle announced that new cars were now available to physicians.

The matter of gasoline rationing was discussed by Rex Z. Howard, Tom B. Bond, Valin R. Woodward, Hobart O. Deaton and Judge M. Lyle. Offers of resignation by the gasoline rationing committee were declined by a motion offered by Judge M. Lyle, and was carried, as follows: That the gasoline rationing committee continue its service as in the past, and the society give authority to the commitee to cut off offenders and report them to the O. P. A. by letter notifying them of the committee's action.

Wichita County Society

February 13, 1945

(Reported by Harry Ledbetter, Secretary)

Carcinoma of the Prostate—J. R. Reagan.
The Use of Sodium Pentothal Anesthesia in Goiter Surgery—W. E. Crump.
Modern Nutrition (Motion Picture).

The Wichita County Medical Society held its regular meeting Tuesday, February 13, 1945, with thirty-one members present. The scientific program as given above was carried out.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. S. E. Thompson, Kerrville; President-Elect, Mrs. C. B. Alexander, San Antonio; First Vice-President, Mrs. Ramsey Moore, Dallas; Second Vice-President, Mrs. H. B. Allen, Brownwood; Third Vice-President, Mrs. C. C. Jowell, Cleburne; Fourth Vice-President, Mrs. Paul H. Power, Waco; Recording Secretary, Mrs. Mark H. Latimer, Houston; Corresponding Secretary, Mrs. H. H. Gallatin, Kerrville; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Treasurer, Mrs. F. R. Rugeley, Wharton; Parliamentarian, Mrs. E. W. Jones, Wellington.

AUXILIARY NEWS

Bowie-Miller Counties Auxiliary met February 22, in the home of Mrs. Allen Collom, Texarkana. Cohostesses were Mesdames A. W. Roberts and T. F. Kittrell.

Resolutions memorializing a valued member, Mrs. L. H. Lanier, were read.

Mrs. J. H. Rives gave an interesting and clever talk on "How to Acquire Good Looks," in which she stressed health, personality, character, carriage, and correct dress as important factors in looking one's best.

Mrs. Roy Baskett played a piano number "Nocturne in D-flat" (Chopin).

Mrs. R. R. Kirkpatrick presided at a business meeting at which the names of the new officers were read, as follows: Mrs. William Hibbitts, president; Mrs. N. B. Daniel, president-elect; Mrs. Roy Baskett, first vice-president; Mrs. J. H. Rives, second vice-president; Mrs. Allen Collom, third vice-president; Mrs. L. J. Kosminsky, fourth vice-president; Mrs. Ralph Cross, recording secretary; Mrs. A. G. Lee, corresponding secretary; Mrs. Chester Kitchens, treasurer; Mrs. Joe Tyson, historian; Mrs. Reavis Pickett, publicity; Mrs. R. R. Kirkpatrick, parliamentarian.

Brown-Comanche-Mills-San Saba Auxiliary met February 15, at the Hotel Brownwood. Following a dinner, the Auxiliary voted to have one general meeting each year in February.

Officers were elected as follows: Mrs. J. M. Campbell, Goldthwaite, president; Mrs. H. L. Lobstein, secretary.

Announcement was made of the district meeting of the auxiliary in Brownwood in October. Mrs. Joe McFarland is president of the Fourth District Auxiliary, and Mrs. H. L. Lobstein is secretary.

Dallas County Auxiliary met March 7 at the Melrose Hotel, Dallas.

Mrs. Andrew H. Small, chairman for the day, presented Dr. Tinsley Harrison, dean of Southwestern Medical College, who was the guest speaker.

Mrs. J. R. Maxfield, Jr., program chairman, presented a program in honor of doctors at home and abroad. Mayor J. Woodall Rodgers of Dallas was a special guest.

Dr. Elliot Mendenhall, chairman of the legislative and public relations committee of Dallas County Medical Society, addressed the auxiliary with regard to legislation of interest to the medical profession pending in the State Legislature. Members of the auxiliary were urged to write to their senator and representatives in opposition to legislation hurtful to the public health, and to get as many of their lay friends as possible to also write in opposition to such legislation.

Preceding the business session, a morning coffee was served, with Mrs. U. P. Hackney, historian, and Mrs. Hall Shannon, president, presiding at the coffee table. Members of the health education group were hostesses.

The Executive Board of the auxiliary met March 6, at the home of Mrs. Sydney S. Baird.—Mrs. Floyd S. Franklin.

El Paso County Auxiliary honored Mrs. S. E. Thompson of Kerrville, state president, with a tea March 12 at the home of Mrs. James Vance, El Paso. Hostesses included Mesdames Steve Schuster, H. M. Shannon, Leslie Smith, M. P. Spearman, Erich Spier, Burleson Staten, Jesson Stowe, S. D. Swope, A. A. Treece, H. H. Varner, S. G. Van Almen, Leigh Wilcox and H. E. Stevenson.

Mrs. Thompson was honored March 11 with a buffet supper, in the home of Mrs. R. B. Homan, Sr. Co-hostesses with Mrs. Homan were Mesdames R. B. Homan, Jr., George Turner and Leslie Smith. Guests included past and present officers of the auxiliary.

Galveston County Auxiliary celebrated its twenty-fifth anniversary with a silver tea at the home of Mrs. G. W. N. Eggers, Galveston, March 13. Charter members of the auxiliary were honored with places in the receiving line. Fifteen charter members of the twenty still living were present. Each was presented with a corsage. About 100 members called. The refreshments carried out the silver anniversary theme.

Hostesses for the occasion were the older members of the auxiliary. Mesdames Chauncey D. Leake, J. L. Jinkins, Dick P. Wall and Frederick Fowler presided at the tea and coffee service.

Grayson County Auxiliary met February 23 at the Denison Hotel. Following a luncheon, officers were elected as follows: Mrs. W. A. Lee, president; Mrs. Arthur Gleckler, first vice-president and program chairman; Mrs. Vernon Tuck, second vice-president and public relations chairman; and Mrs. F. F. Fowler, secretary and treasurer.

Mrs. Max Woodward presided at a business session, at which time reports of auxiliary work during the past year were reviewed. A letter of commendation from the state auxiliary president was read.

Mrs. E. L. Hailey, chairman of public relations, reviewed the principal project of the auxiliary which is the collection of blood plasma. Eight collections have been made since 1943; five for Red Cross, and three for civilian use in Grayson County. The report showed 5,401 registrants had given 4,312 pints of blood—3,718 pints for the Red Cross and 594 for civilians. The collections have been made in coöperation with the William Buchanan Foundation in Dallas.

Mrs. S. O. Levin presented three Denison artists in an entertainment program: Mrs. Arthur Frank, reader; Mrs. L. M. Stuart, contralto; and Miss Thelma Braun, pianist. Wives of medical officers at Perrin Field were special guests.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary met March 2 at the home of Mrs. W. E. Gregg. Co-hostesses with Mrs. Gregg were Mesdames Pierce Hoggett, C. B. Meador and C. M. Phillips.

The following officers for the coming year were elected: Mrs. W. E. Gregg, president (re-elected); Mrs. C. L. McClellan, first vice-president; Mrs. Victor Keidel, first vice-president; Mrs. Mara Green, second vice-president; Mrs. H. H. Gallatin, third vice-president; Mrs. L. A. Feller, third vice-president; Mrs. W. A. Cassidy, secretary; Mrs. A. P. Allison, treasurer; Mrs. H. J. Perry, parliamentarian; and Mrs. C. F. Culver, historian.

Mrs. Gregg urged members to write to their senator and representatives in opposition to cultist legislation pending in the State Legislature. Plans were made for a covered dish supper to celebrate Doctors' Day, which will probably be held at "Steepside," the home of Dr. and Mrs. S. E. Thompson, Kerrville, at which time husbands of members of the auxiliary will be honor guests.

After the meeting tea was served with Mrs. C. C. Jones and Mrs. J. D. Jackson presiding.—Mrs. W. A. Cassidy.

Liberty-Chambers Counties Auxiliary entertained members of the Liberty-Chambers Counties Medical Society with a buffet supper, March 8, at the home of Dr. and Mrs. E. R. Richter, Dayton, in observance of Doctors' Day.

Mrs. J. T. Tadlock was presented in an informal recitation.—Mrs. R. C. Bellamy, secretary.

Lubbock-Crosby Counties Auxiliary met February 20. Following a luncheon at the Hilton Hotel, Lubbock, officers were elected as follows: Mrs. Olan Key, president; Mrs. O. R. Hand, vice-president; and Mrs. Emerson M. Blake, secretary and treasurer.

The auxiliary will hold its next meeting May 8, at the Hilton Hotel, Lubbock.

Tarrant County Auxiliary recently enjoyed a "gay nineties" dinner with members of Tarrant County Medical Society at the Colonial Country Club, Fort Worth.

A production of "Curse You, Jack Dalton," directed by Mrs. A. B. Pumphrey, featuring Dr. Joe R. Wise in the title role, Mrs. James Hallmark as the heroine, and Dr. J. F. McVeigh as the villian, was presented.

A quiz program was conducted by Dr. C. S. E. Touzel, and a sing-song was held with Mrs. H. O. Deaton as accompanist. Tables were decorated in the "gay nineties" motif. Favors were lace fans for the women and handlebar mustaches for the men.

Mrs. John J. Andujar was entertainment chairman, and Mrs. Joe R. Wise was in charge of decorations.

Travis County Auxiliary met recently with Mrs. S. E. Thompson, Kerrville, state president, as honor guest and principal speaker. Mrs. Thompson reviewed concisely the accomplishments of the medical profession of Texas from pioneer days of the State to the present, in raising medical standards and in protection of the public health. She referred to cultist legislation pending in the current Legislature, which,

if enacted, would permit untrained and unscientific practitioners to prey on the public. She pointed out that such cultists do not believe in the germ theory of disease, vaccination, or inoculation against disease. She emphasized that physicians alone, without public support, cannot be expected to maintain proper health standards and that the lay public should be informed and its support should be secured.

Washington County Auxiliary met February 23, at the Hotel St. Anthony, Brenham, with Mrs. Robert Hasskarl presiding.

Mrs. C. E. Southern, program chairman, presented Mrs. Hugh Lusk, who read a paper entitled "Contributions of Medical Science to the war." Among contributions listed were penicillin, plasma, an anaesthetic called pentothal sodium, refrigeration anesthesia, and miracles of plastic surgery.

Mrs. Sam Toubin gave an interesting resume of an article entitled "Blue Cross Hospitalization" from the March issue of *Hygeia*, which reports that three states have enrolled 25 per cent of their population in the Blue Cross.

It was reported that the book-of-the-month, "The Great Son," had been sent to McCloskey General Hospital for its library, and that a donation had been made to the "March of Dimes."

South Texas District Auxiliary met February 26, at the Art Museum, Houston.

Officers were installed by Mrs. John T. Moore of Houston, as follows: Mrs. R. C. Bellamy, Daisetta, president; Mrs. F. J. L. Blassingame, Wharton, president-elect; Mrs. C. E. Southern, Burton, first vice-president; Mrs. R. M. Milner, Yoakum, second vice-president; Mrs. S. C. Walker, Hempstead, third vice-president; Mrs. J. J. Truitt, Houston, recording secretary; Mrs. R. G. Johnson, New Gulf, treasurer; Mrs. E. R. Richter, Dayton, corresponding secretary; Mrs. Charles Thomas, Houston, press secretary; Mrs. Mitchell O. Gibson, Lufkin, parliamentarian.

Harris County Auxiliary was hostess to the district organization, and entertained them with a morning coffee.

Mrs. Fortenberry of Beaumont gave an informative talk on socialized medicine.

BOOK NOTES

[1]**A Textbook on Pathology of Labor, the Puerperium and the Newborn.** By Charles O. McCormick, A. B., M. D., F. A. C. S. Clinical Professor of Obstetrics, Indiana University School of Medicine; Consulting Obstetrician to William H. Coleman Hospital for Women, Indianapolis City Hospital, and Sunny Side Sanitarium. Cloth, 399 pages, with 191 illustrations, including 10 in color. Price, $7.50. St. Louis, The C. V. Mosby Company, 1944.

This book is an unusual presentation in that it shows remarkable streamlining, giving short descriptions in the text with an abundance of illustrations. As a whole the book is extremely thorough, covering an entire field in less than 400 pages that frequently is not as well covered in 1,200 to 1,600. Unfortunately, it does not reflect the individual views of the author to the extent one would wish. He very modestly and unobstrusively includes some of the most outstanding contributions he has made in this field along with the more commonly accepted views in the literature. One remarkable change in the construction of this book is in leaving out the large comprehensive list of references at the end of each chapter which is customarily presented and never used, having only a limited number of references inserted throughout the text. The book is frankly intended for the use of students and general practitioners and should be on the desk of each general practitioner doing obstetrics as a ready reference to the modernly accepted viewpoint and treatment of most of the anomalies of labor and puerperium.

The work can hardly be considered as anything other than a postgraduate course in obstetrics, including as it does the generally accepted view of each subject brought down to about 1943.

The excellent judgment of the author is clearly illustrated in his attitude in criticizing some accepted methods, such as Watson's induction and Potter's too frequent use of version, and certain methods used to shorten labor. He states that protracted labor frequently is favorable to both mother and baby.

The first two chapters are practically an abstract from any standard textbook on obstetrics but have here and there short but impressive notes that reflect the author's touch. The chapter on postpartum hemorrhage is short but complete. It could be copied and displayed in every delivery room to advantage. The chapter on obstetric operations is necessarily sketchy but excellent in presentation and would be extremely useful to anyone not doing a great deal of obstetrics. The chapter on puerperal infection is quite full and includes the modern views on the use of sulfadiazine and penicillin.

There are very few things that have slipped into the book that can be criticized; among these may be mentioned the use of lysol solution, the use of quinine in the induction of labor and the administration of food during labor.

Some of the outstanding things recommended are the intravenous use of glucose and salt solution during labor and the use of ergotrate in the last stage of labor.

McCormick refers to his report of 1941 in which he states "that analgesia not only protects the mother against mental and physical shock, but likewise enhances the welfare of the newborn infant by guarding it against birth shock. The infant experiences less initial weight loss, suffers less dehydration, and recovers birth weight more promptly.* However, in his criticism of caudal analgesia, he fails to point out that the newborn has no analgesia and hence no protection against birth shock.

In the chapter on the pathology of the newborn, there are many useful and timely suggestions. He mentions the use of the tracheal catheter but does not accent it sufficiently, even picturing mouth to mouth insufflation and the Emerson resusciatator neither of which should be used, but he does state that "proper use of the tracheal catheter will revive any baby that can be reanimated by more complicated means." There is no excuse for not having and using a thirty-five cents catheter. McCormick states "that tossing, swinging, slapping, tubbing in hot and cold water, and similar rough house methods are passe. In no other field of medicine do we treat shock so shockingly."

To sum up, the book is practically a complete treatise on obstetrics without being cluttered with elementary or preparatory teaching. I earnestly recommend it to everyone practicing obstetrics and especially to anyone who has an "occasional case."

[2]**The Urinary Tract, A Handbook of Roentgen Diagnosis.** By H. Dabney Kerr, M. D. Professor of Radiology, State University of Iowa College of Medicine, and Carl L. Gillies, M. D., Associate Professor of Radiology, State University of Iowa College of Medicine. Cloth, 320 pages. Price, $5.50. Chicago, The Year Book Publishers, Inc., 1944.

The authors have succeeded admirably in their efforts to "produce a low-priced handbook in which

[1]Reviewed by Ben Hill Passmore, M. D., San Antonio, Texas.

[2]Reviewed by R. P. O'Bannon, M. D., Fort Worth, Texas.

*McCormick, C. E.: The Effects of Analgesia on the Newborn, Am. J. Obst. & Gynec. 41:391, 1941.

the roentgen appearance of the more common and some of the uncommon lesions are available for ready reference." As the authors state, the material is extensive but not all inclusive. The illustrations are all taken from cases studied at the State University of Iowa Hospital and all are made from retrograde pyelograms throughout the entire book. The illustrations are clear and all placed on the right hand page with the comprehensive legends and explanations on the opposite page for quick and easy reference. The conditions illustrated are for the most part typical of the conditions under discussion, and atypical or borderline cases have apparently been avoided.

The book is divided into four sections: the kidney, the ureter, the bladder and the urethra. A moderate number of unusual conditions are discussed in each of these sections. Kidney injury from physical violence, which is now fairly commonly recognized, has apparently been omitted but amazing instances of penetration of the kidney tissue and the capsule by a ureteral catheter are shown and were not followed by any serious disturbance as a result of this accident. An unusual feature of this book and not found in other books dealing with this subject matter is that about one-fourth of it is devoted to roentgenology of the urethra. This section is unusually complete and is a revelation to those of us who have given but little attention to the subject of urethrograms.

DEATHS

Dr. Jason Earl Montgomery of Weslaco, Texas, died suddenly January 30, at his home, of heart disease.

Dr. Montgomery was born October 14, 1871, at Annona, Texas, the son of Marion and Clarissa Montgomery. Before beginning the study of medicine, he taught in the public schools of Eastland County for several years. His medical education was received in Baylor University College of Medicine, Dallas, from which he was graduated in 1908. After graduation, he began the general practice of medicine at Rising Star, Texas. He then took special work in Eye, Ear, Nose and Throat in the Chicago Eye, Ear, Nose and Throat Hospital, and at Tulane University, New Orleans. In 1914 he located in Stamford, where he practiced his specialty until 1925. He then moved to Weslaco, where he was engaged in the practice of Eye, Ear, Nose and Throat until his death.

Dr. Montgomery was a member for many years of the State Medical Association and American Medical Association through the county medical societies of his places of residence. While residing at Weslaco, he was local surgeon for the Missouri Pacific Railway. He was a member of the Christian Church, a Mason, and a member of the Eastern Star. He was held in the highest regard by all who knew him.

Dr. Montgomery was married to Miss Bertha Wylie of Moran, Texas, in 1901. He is survived by his wife; two sons, Wilburn Earl of McAllen and R. Waldo of Weslaco; one brother, Frank Montgomery, Stephenville; and five sisters, Miss Ida Montgomery and Mrs. Effie Stinson of California, Mrs. John Wren and Mrs. Will Henderson of Rising Star, and Mrs. Jessie Morris of Moran.

Dr. Robert Abner Partain, Jr., of San Antonio, Texas, died suddenly February 15, 1945, of coronary occlusion, in the operating room of a San Antonio hospital while preparing to perform an operation.

Dr. Partain was born December 23, 1897, in Beeville, Texas, the son of Mr. and Mrs. Robert Abner Partain. His academic education was received in the public schools and the University of Texas, Austin, from which institution he received the B. A. degree in 1922. His medical education was obtained in the University of Texas, School of Medicine, Galveston, from which he was graduated in 1927. He then served a two-year internship in Charity Hospital, New Orleans. He began the practice of medicine in San Antonio, Texas, in 1930, which was his home for the remainder of his professional life.

Dr. Partain was a member continuously in good standing during his practice in San Antonio, of the Bexar County Medical Society, the State Medical Association and the American Medical Association. He was a Fellow of the American Medical Association and the American College of Surgeons. He was held in the highest esteem by his medical associates and the citizenry of the city in which he practiced. He was a member of the Methodist Church and a thirty-second degree Mason. In World War I he served as a First Lieutenant in the Army. A touching tribute to Dr. Partain was published in a San Antonio paper on the occasion of his death, in which it was pointed out that while Dr. Partain as a civilian could not be awarded posthumously the Legion of Merit, nevertheless, because of his fidelity in essential service in a position of responsibility on the home front, under difficulties of wartime medical shortages, he was qualified in every other respect for that recognition. He died at his post of duty.

Dr. Partain was married to Miss Julia Frances Knopp of San Antonio, December 8, 1933. He is survived by his wife and three children: Robert Abner III, aged 10, Jon Ogilvie, aged 8, and Barbara Ann, aged 7. He is also survived by two brothers; Captain J. M. Partain, Medical Corps, Army of the United States, and George S. Partain, San Antonio; and two sisters, Mrs. T. A. Simons, Kingsville, and Mrs. J. L. Lawrence, San Antonio.

Dr. Forest Jackson Green of Mineola, Texas, died suddenly January 11, 1945, at his home, of heart disease.

Dr. Green was born August 19, 1877, at Winsboro, Texas, the son of George W. and Mary Green. His academic education was received in the schools of his community, at Orr College, Omen, Texas, and Baylor University, Waco. His medical education was received at Louisville Medical College, Louisville, Kentucky; Tulane University, New Orleans, Louisiana, and Baylor Medical College, Dallas, from which he was graduated in 1902. He began the practice of medicine in Winsboro, Texas. He had later practiced in Longview, Corsicana and Tyler, and for the past three years had been located in Mineola. During his years of practice, he had taken postgraduate work in various clinical centers. He served as examining physician and member of a draft board during World War I.

DR. F. J. GREEN

Dr. Green was for many years a member of the State Medical Association and American Medical Association through county medical societies where he resided. He was an Oddfellow, and a member of the Presbyterian Church, which institution he had served as deacon. He was highly regarded as a conscientious general practitioner, and his genuine interest in church, community and school affairs endeared him to his community.

Dr. Green was married to Miss Carrie M. Henderson of Longview, in 1923. He is survived by his wife and one son, Pfc. Forest J. Green, U. S. Army.

Dr. **Joseph S. McCreary** of Buffalo, Texas, died February 15, 1945, of heart disease. He was buried with military honors at Buffalo, February 16, with members of the Eighth Service Command officiating.

Dr. McCreary was born August 2, 1899, at Marlin, Texas, the son of George E. and Lillie Alice (Magee) McCreary. His academic education was received at Lott High School and Baylor University, Waco. He taught school for a number of years before beginning the study of medicine. His medical education was obtained in Baylor University College of Medicine, Dallas, from which he was graduated in 1932. He interned at Parkland Hospital, Dallas, and began the practice of medicine and surgery at Buffalo, Texas. He moved to Shamrock in 1934 where he remained until 1936, when he moved to Crockett, Texas. One year later he returned to Buffalo. In 1940, he opened a clinic in Buffalo, which he operated until his entry into the armed services.

DR. J. S. McCREARY

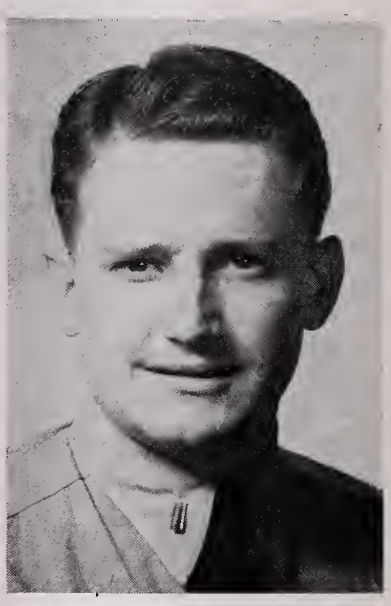
Dr. McCreary was commissioned a Captain in the Medical Corps of the Army of the United States, and was assigned to the William Beaumont Hospital at El Paso, Texas, in July, 1942. In August of that year he was transferred to Fort George Meade, Maryland, from which he was assigned to Walter Reed Hospital for special training in tropical and military medicine. He went overseas with the Ninety-third Division in March, 1943, and served in the North African, Sicilian and Italian campaigns. In January, 1944, Dr. McCreary became ill and was hospitalized in North Africa, until he recovered sufficiently to be moved to Brooke General Hospital, Fort Sam Houston, Texas. He was retired from active service in October, 1944, and returned to Buffalo, where he maintained a limited practice until his death.

Dr. McCreary had been a member of the State Medical Association and American Medical Association through the county medical societies of his various places of residence, since 1934. He was a member of Phi Alpha Sigma medical fraternity, and of the Baptist Church. Dr. McCreary was a lover of all sports, and an ardent football fan. He was beloved by his community, and was highly esteemed for both civilian and military medical service.

Dr. McCreary was married to Miss Edna E. Jones of Buffalo, April 10, 1929. He is survived by his wife and two children of that marriage, Edna Ruth and Joseph S., Jr. He is also survived by one daughter of a former marriage, Doris Jeanne; and three sisters, Mrs. J. K. Simmons, Mrs. A. D. Cline and Miss Alba McCreary, all of San Angelo; and one brother, Major Frank D. McCreary, now serving in New Guinea.

Lieutenant Marshall J. Rogers, M. C., USNR, of Rule, Texas, was killed in action recently in the Pacific theater of war.

Dr. Rogers was born September 2, 1916, in Rule, the son of Dr. and Mrs Madison W. Rogers. His father has been practicing medicine at Rule for forty years. His early education was received in the public schools and at Hardin - Simmons University, Abilene, which he attended for two years, and the University of Texas. His medical education was received in Baylor Medical College, then at Dallas, from which he was graduated in June, 1942. After graduation, he served a year's internship at a Naval Base Hospital in Jacksonville, Florida, following which he saw sea duty on a supply ship. He was promoted to the rank of Lieutenant in July, 1944. He was a member of the Baptist Church.



LIEUTENANT MARSHALL J. ROGERS

Dr. Rogers is survived by his parents; and two sisters, Mrs. Frank Campbell, Fort Worth, and Mrs. Maurice Crawford, Stamford.

Dr. John Bruce Ramsey of Forest, Texas, died Feb-12, 1945, in a Jacksonville hospital, of typhus fever, and complications.

Dr. Ramsey was born September 13, 1866, at Campbellsville, Tennessee, the son of Rufus Calvin and Mary A. Ramsey. He moved to Texas with his parents at an early age. His preliminary education was received in the public schools of Navarro County. His medical education was obtained in the Medical Department of Vanderbilt University, Nashville, Tennessee, from which he was graduated in 1891. During his professional life, he took postgraduate work in New Orleans and Saint Louis. Dr. Ramsey began the practice of medicine at Forest, Texas, and a while later he was employed by a coaling camp between Forest and Alto. He then moved to Navarro County, where he practiced for about six years, returning to Alto in 1900. In 1906 he moved to Forest, where he was employed by the Chronister Lumber Company until a short time before his death.

Dr. Ramsey was a charter member of the Cherokee County Medical Society, which he served as president in 1936, the State Medical Association and the

American Medical Association, and a member of the East Texas Medical Society, of which he was secretary for a number of years. He was a member of the Methodist Church and a Mason. He was highly esteemed by all who knew him for his long years of service, his activity in community affairs, and his interest in health education.

Dr. Ramsey was married to Miss Nina McCall of Forest, in 1889. He is survived by his wife; three sons, Clyde of Dallas, Edwin of Forest, John Bruce, Jr., of Austin; two daughters, Ruth of Fort Worth, and Mrs. Josie Lee Garner of Lufkin; two brothers, A. E. Ramsey of St. Louis, and R. M. Ramsey of Corsicana; and one sister, Mrs. H. J. Wilson of Corsicana.

Dr. Edmond Henri Sauvignet of Laredo, Texas, died January 27, 1944, of uremic toxemia.

Dr. Sauvignet was born July 19, 1874, in San Antonio, Texas, the son of Henry August and Laure Josephine (Rigollot) Sauvignet. His academic education was received in the public schools of Laredo; Ecole d' St. Rambert, Lyons, France, and Texas Agricultural and Mechanical College, College Station, Texas, from which latter institution he was graduated in 1892. He was Captain of the Cadet Corps at the time of his graduation. His medical education was obtained at Escuela National De Medicina, Mexico City, D. F., which he attended for two years, and Tulane University, New Orleans, from which he was graduated as salutatorian of his class in 1898. He served as the first resident physician and surgeon in Santa Rosa Hospital, San Antonio, from 1898 to 1900. He then began the practice of medicine at Laredo, where he had been in the active practice of medicine and surgery for forty-five years. During his professional career, he had taken postgraduate work at clinical centers in Washington, Chicago, and San Francisco.

DR. E. H. SAUVIGNET

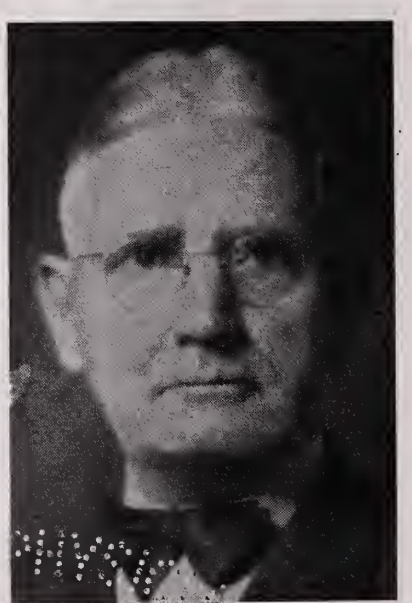
Dr. Sauvignet was a member throughout his professional career of the Webb County Medical Society and Webb-Zapata-Jim Hogg Medical Society after the latter was organized, the State Medical Association and American Medical Association. He had served the Webb-Zapata-Jim Hogg Medical Society as secretary, and as president during two different administrations. He was a member of the Southern Medical Association, and a charter member of the International Congress on Tuberculosis, which was organized in Laredo in 1944. He served Webb County as health officer from 1935 to 1937, and had also served the City of Laredo as health officer. During the yellow fever epidemic in 1933, he was health officer for the Federal Government. He had served as district surgeon for the Texas Mexican Railroad, and was district surgeon for the Missouri Pacific Railroad from 1901 to 1945. He was examining physician for Webb County Draft Board during both World War I and World War II. He was a constant student of medicine throughout his professional career, and had kept constantly abreast of its advances. He owned and operated the first x-ray machine in his part of the state for many years. He was also a scholarly student of sciences allied to medicine. Dr. Sauvignet was not only highly esteemed by his medical associates, but was generally beloved by the people of his city. He was a typical family physician, counsellor and friend, to his patients, regardless of their ability to pay. He had sincere convictions and many and varied interests which attracted many people to him. He was a member of the Red Men's Organization, Yaqui Tribe No. 59; the Kiwanis Club; the Elks fraternal organization, which he served as exalted ruler in 1922; a fourth degree member of the Knights of Columbus; a member of the Laredo Men's Bible Class; Saint Peter's Catholic Church Men's Club, and had served as president of the local Texas A. & M. Club.

Dr. Sauvignet was married January 10, 1900, to Miss Leonore Beze, of San Antonio. He is survived by his wife; one son, F. Victor Sauvignet, Laredo; one daughter, Mrs. Charles F. Potter, Dallas, and one sister, Mrs. A. E. Hamilton, Laredo.

Dr. Charles McDaniel Rosser of Dallas, died in a Dallas hospital, January 27, 1945, following an extended illness.

Dr. Rosser was born in Cuthbert, Georgia, December 22, 1862. His father, the Reverend M. F. Rosser, a well known Methodist Minister of his day, served in the Confederate Army as Chaplain of the 41st Georgia Regiment. His mother, Amelia Smith, was of a distinguished pioneer family. The family removed to Texas in 1865, locating in Camp county.

Dr. Rosser was educated in the neighborhood schools, finishing has academic studies in the East Texas Academic Institute, under a noted teacher of the times, John M. Richardson. His medical education was received in the University of Louisville, from which institution he graduated with the degree of M. D., in 1888. Following his graduation, he taught school for a time in East Texas, taking up the practice of medicine in Waxahachie, Texas, from which community he removed to Dallas in 1890, where he resided and practiced medicine and surgery until his last illness, with the exception of a brief period of time spent as Superintendent of the then so-called "North Texas Hospital for the Insane" at Terrell, Texas, to which position he was appointed by his close friend, Governor and later United States



DR. C. M. ROSSER

Senator, Charles A. Culberson. He returned to private practice in Dallas, in 1897. He was among the first Texas physicians to confine his work entirely to surgery. In later years, he was associated in practice with his son, Dr. Curtice Rosser. At the time of his death, Dr. Rosser held an Honorary Professorship in Surgery at the Southwestern Medical College, recently established in Dallas, following the removal of Baylor Medical College to Houston. This honor was in recognition of the distinguished service Dr. Rosser had rendered the cause of medical education in Texas, particularly in Dallas, and as well because of his extensive and important contributions to surgery. It is rather generally conceded that Dr. Rosser was the father of Baylor University College of Medicine, at Dallas, and for many years he served as Professor of Surgery in that institution. In 1901, he founded the Good Samaritan Hospital, in Dallas, which was the predecessor of the present magnificent Baylor Hospital. He deeded the Good Samaritan Hospital property to Baylor Hospital in 1903. In 1937, his fellow faculty members presented the Baylor Hospital with an oil portrait of Dr. Rosser, the painting showing the Good Samaritan Hospital in the background. At the special ceremonies at which the portrait was presented, Dr. E. H. Cary, Dean of Baylor University College of Medicine at the time and for many years, said of Dr. Rosser, in this connection: "It took a brave man, a far sighted man, a courageous man with indomitable energy and great capacity for organization to go out and override all obstacles to establish what became the Medical Department of the University of Dallas."

The Reverend J. B. Cranfill said of him, "This man, Dr. Rosser, is responsible for the creation of all our Baptist medical institutions in this city. He is a fine citizen, a great scientist, a splendid gentleman and a surgeon of skill and ability. He is intuitionally a man of medical ingenuity." Dr. C. C. Selecman, at the time President of the Southern Methodist University, paid a similar tribute to Dr. Rosser, emphasizing his skill as a surgeon, his oratorical ability, and his great capacity for friendship, concluding his tribute with the statement that, "He is a man of uncompromising integrity, and if necessary, would become a martyr for his ideals." These and many more such expressions will easily explain the fact of his service to scientific medicine, which service ramifies so extensively that it is impossible to make it of record here.

Neither would it be feasible to detail here his contributions to medical literature. Perhaps it is sufficient to say that they were many and important, some of them distinct contributions to the progress of modern surgery. Self-expression came easy with Dr. Rosser, both from the platform and in literature. He was an eloquent speaker, and an interesting and fluent writer in the field of medicine, and in other fields as well. His book on "The Crusading Commoner," William Jennings Bryan, was perhaps the best biographical account of that great man that has been written. It came of an extensive and intimate acquaintance with Mr. Bryan and many of his most intimate friends. Later on, and a few years before his death, Dr. Rosser undertook to encompass in a single volume, something of his own experiences, and much of the practice of medicine during the pioneer years of his life. The title of the book, "Doctors and Doctors. Wise and Otherwise," is expressive, but the sub-title, "On the Firing Line Fifty Years," comes nearer indicating the character of the book. No spoken or written word of his ever escaped his most searching consideration, that it might be fully and properly expressive of the thought it was intended to convey. So definite was this characteristic that it was possible for him to repeat sentences and paragraphs from speeches and writings of months and even years past.

The contribution of Dr. Rosser to the public welfare and organized medicine were most effective, and many of them epoch-making. He became a member of the State Medical Association of Texas shortly after entering the practice of medicine, joining in 1889, at which time Dr. J. F. Y. Payne was President. It is not feasible to state here the many capacities in which he served during his membership, or the positions of trust which he held. He was Vice President of the State Medical Association in 1897, and was its Fifty-eighth President (1925-1926). In the meantime, he contributed notably to the legislative program of the Association at a time when legislative efforts of doctors were by way of being pioneer activities. He was Chairman of the Section on Surgery in 1918. He became President of the Dallas County Medical Society in 1923, and was President of the Southwest Surgical Association from 1904-1907. He served as President of the Medical Association of the Southwest in 1907. He was a life Fellow of the American College of Surgeons. He was elected to Honorary Membership in the State Medical Association in 1944.

Dr. Rosser served a full term as member and President of the first State Board of Health. In the year 1903, he was instrumental in bringing to Dallas and the then young medical college and unpretentious hospital there, the eminent orthopedic surgeon, Dr. Adolph Lorenz of Vienna, Austria, who conducted a clinic in "bloodless surgery," a procedure very much under discussion at the time. During World War I, he was assigned to duty as a speaker, by the then Secretary of the Treasury, and in that capacity addressed many audiences throughout the state.

Of distinct interest now in the pioneer efforts of Dr. Rosser is the campaign he organized and led the year before he became President of the State Medical Association, in an effort to convey to the public something of the truth about medical cults, which subject was approached at the time because of the early efforts of chiropractors to secure recognition as one of the acceptable branches of the healing art. In his efforts he received the unstinted support of many of the stalwarts of the medical profession of that day. The campaign was continued with much amplification, during his term as President of the State Association. The campaign covered many platforms in the State and filled the newspapers of the State, not alone with propaganda material, but advertising as well. Money to cover this activity, it will be recalled, was for the most part raised by voluntary subscription among members of the Association. We are still fighting the fight. Dr. Rosser knew about it at the time of his death, and approved.

Dr. Rosser was a member of a great many civic bodies, and active in most of them. He was a member of the First Methodist Church of Dallas, and was a Mason. He was a member of the Dallas Athletic Club, the Writers Club, and the Town and Gown Club.

Dr. Rosser was married in 1897, to Miss Elma Curtice of Eminence, Kentucky, a member of a well known family of that great state. There were two children, Dr. Curtice Rosser of Dallas, and Mrs. George McBlair, also of Dallas, both of whom survive him. Mrs. Rosser died several years ago. A brother, V. O. Rosser, and a sister, Mrs. Cora Garrison, also survive him.

The Honorable Thomas B. Love once paid this tribute to Dr. Rosser: "Dr. Rosser is a superb exemplar of the considerate and uncompromising friend. If you are fortunate in his friendship he does not wait for you to tell him your troubles, but when they are greatest and you are in the most distress, he somehow finds it out and arises out of the ground by your side."

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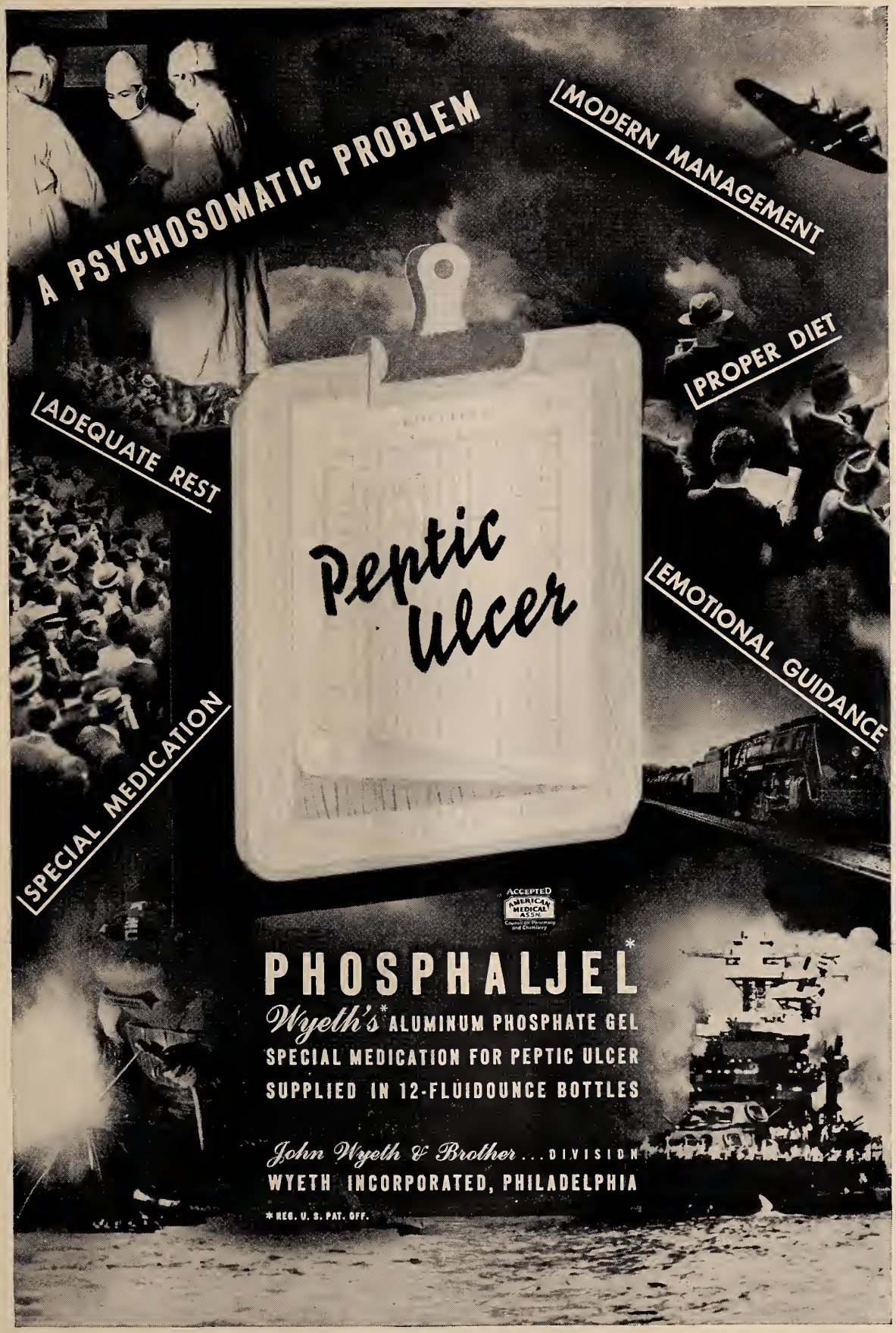
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